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WHOLE EARTH REVIEW

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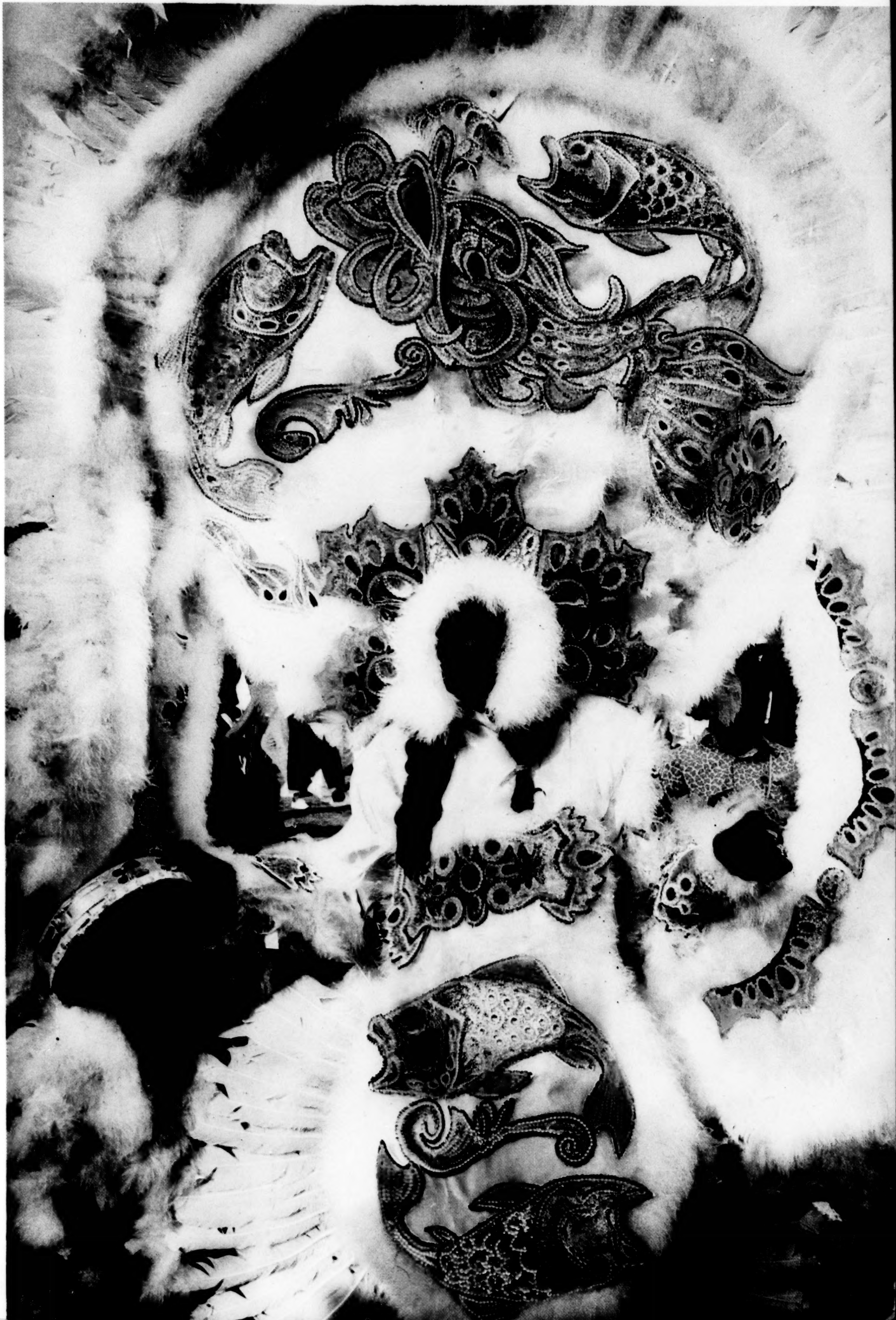

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•Cover photograph by Michael Smith; hand tinting by Kathleen O'Neill.

Whole Earth Review □ *Issue No. 54* □*March 10, 1987 (ISSN 0749-5056) (USPS 077-150). Published quarterly by POINT, a California non-profit corporation. Editorial office: 27 Gate Five Road, Sausalito, CA 94965; 415/332-1716. Subscriptions $18 per year; single copies $4.50.*

Inquire for first class and international air rates. Second-class postage paid at Sausalito, California, and at additional mailing offices. Claims for missing issues will not be honored later than six months after publication. Back issues are available on microfilm and as xerographic reprints from University Microfilms International, Serials Bid Coordinator, 300 Zeeb Road, Ann Arbor, MI 48106. Whole Earth Review *is indexed by Access: The Supplementary Index to Periodicals, Alternative Press Index, Magazine Index, Consumers Index, and Humanities Index.*

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Subscription circulation: 20,199. Newsstand circulation: 33,233.

POSTMASTER: Send address changes to Whole Earth Review, *Box 15187, Santa Ana, CA 92705.*

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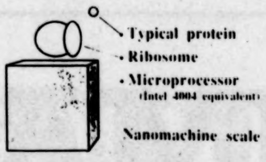

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THE BASIC

OF HUMAN

by Carlo M. Cipolla

THE FIRST BASIC LAW

The First Basic Law of Human Stupidity asserts without ambiguity that

Always and inevitably everyone underestimates the number of stupid individuals in circulation.

At first, the statement sounds trivial, vague and horribly ungenerous. Closer scrutiny will however reveal its realistic veracity. No matter how high are one's estimates of human stupidity, one is repeatedly and recurrently startled by the fact that:

a) people whom one had once judged rational and intelligent turn out to be unashamedly stupid.

b) day after day, with unceasing monotony, one is harassed in one's activities by stupid individuals who appear suddenly and unexpectedly in the most inconvenient places and at the most improbable moments.

The First Basic Law prevents me from attributing a specific numerical value to the fraction of stupid people within the total population: any numerical estimate would turn out to be an underestimate. Thus in the following pages I will denote the fraction of stupid people within a population by the symbol σ.

THE SECOND BASIC LAW

Cultural trends now fashionable in the West favour an egalitarian approach to life. People like to think of human beings as the output of a perfectly engineered mass production machine. Geneticists and sociologists especially go out of their way to prove, with an impressive apparatus of scientific data and formulations that all men are naturally equal and if some are more equal than others, this is attributable to nurture and not to nature.

I take an exception to this general view. It is my firm conviction, supported by years of observation and experimentation, that men are not equal, that some are stupid and others are not, and that the difference is determined by nature and not by cultural forces or factors. One is stupid in the same way one is red-haired; one belongs to the stupid set as one belongs to a blood group. A stupid man is born a stupid man by an act of Providence.

Although convinced that fraction σ of human beings are stupid and that they are so because of genetic traits, I am not a reactionary trying to reintroduce surreptitiously class or race discrimination. I firmly believe that stupidity is an indiscriminate privilege of all human groups and is uniformly distributed according to a constant proportion. This fact is scientifically expressed by the Second Basic Law which states that

The probability that a certain person be stupid is independent of any other characteristic of that person.

In this regard, Nature seems indeed to have outdone herself. It is well known that Nature manages, rather mysteriously, to keep constant the relative frequency of certain natural phenomena. For instance, whether men proliferate at the Northern Pole or at the Equator, whether the matching couples are developed or underdeveloped, whether they are black, red, white or yellow the female to male ratio among the newly born is a constant, with a very slight prevalence of males. We do not know how Nature achieves this remarkable result but we know that in order to achieve it Nature must operate with large numbers. The most remarkable fact about the frequency of stupidity is that Nature succeeds in making this frequency equal to the probability σ quite independently from the size of the group.

There is genius at work in this thesis. It came round about by way of reader Sam Keen, who sent us a thin gray monograph printed in Bologna, Italy. The trail eventually led to Carlo M. Cipolla, the author, who is currently Professor of Economics at UC Berkeley. —*Kevin Kelly*

LAWS OF STUPIDITY

illustrated by James Donnelly

Thus one finds the same percentage of stupid people whether one is considering very large groups or one is dealing with very small ones. No other set of observable phenomena offers such striking proof of the powers of Nature.

The evidence that education has nothing to do with the probability σ was provided by experiments carried on in a large number of universities all over the world. One may distinguish the composite population which constitutes a university in five major groups, namely the blue-collar workers, the white-collar employees, the students, the administrators and the professors.

Whenever I analyzed the blue-collar workers I found that the fraction σ of them were stupid. As σ's value was higher than I expected (First Law), paying my tribute to fashion I thought at first that segregation, poverty, lack of education were to be blamed. But moving up the social ladder I found that the same ratio was prevalent among the white-collar employees and among the students. More impressive still were the results among the professors. Whether I considered a large university or a small college, a famous institution or an obscure one, I found that the same fraction σ of the professors are stupid. So bewildered was I by the results, that I made a special point to extend my research to a specially selected group, to a real *elite,* the Nobel laureates. The result confirmed Nature's supreme powers: σ fraction of the Nobel laureates are stupid.

This idea was hard to accept and digest but too many experimental results proved its fundamental veracity. The Second Basic Law is an iron law, and it does not admit exceptions. The Women's Liberation Movement will support the Second Basic Law as it shows that stupid individuals are proportionately as numerous among men as among women. The underdeveloped of the Third World will probably take solace at the Second Basic Law as they can find in it the proof that after the developed are not so developed. Whether the Second Basic Law is liked or not, however, its implications are frightening: the Law implies that whether you move in distinguished circles or you take refuge among the head-hunters of Polynesia, whether you lock yourself into a monastery or decide to spend the rest of your life in the company of beautiful and lascivious women, you always have to face the same percentage of stupid people — which percentage (in accordance with the First Law) will always surpass your expectations.

THE THIRD (AND GOLDEN) BASIC LAW

The Third Basic Law assumes, although it does not state it explicitly, that human beings fall into four basic categories: the helpless, the intelligent, the bandit and the stupid. It will be easily recognized by the perspicacious reader that these four categories correspond to the four areas *I, H, S, B,* of the basic graph (see next page).

If Tom takes an action and suffers a loss while producing a gain to Dick, Tom's mark will fall in field *H:* Tom acted helplessly. If Tom takes an action by which he makes a gain while yielding a gain also to Dick, Tom's mark will fall in area *I:* Tom acted intelligently. If Tom takes an action by which he makes a gain causing Dick a loss, Tom's mark will fall in area *B:* Tom acted as a bandit. Stupidity is related to area *S* and to all positions on axis *Y* below point *O.* As the Third Basic Law explicitly clarifies:

A stupid person is a person who causes losses to another person or to a group of persons while himself deriving no gain and even possibly incurring losses.

When confronted for the first time with the Third Basic Law, rational people instinctively react with feelings of skepticism and incredulity. The fact is that reasonable people have difficulty in conceiving and understanding unreasonable behaviour. But let us abandon the lofty plane of theory and let us look pragmatically at our daily life. We all recollect occasions in which a fellow took an action which resulted in his gain and our loss: we had to deal with a bandit. We also recollect cases in which a fellow took an action which resulted in his loss and our gain: we had to deal with a helpless person. We can recollect cases in which a fellow took an action by which both parties gained: he was intelligent. Such cases do indeed occur. But upon thoughtful reflection you must admit that these are not the events which punctuate most frequently our daily life. Our daily life is mostly made of cases in which we lose money and/or time and/or energy and/or appetite, cheerfulness and good health because of the improbable action of some preposterous creature who has nothing to gain and indeed gains nothing from causing us embarrassment, difficulties or harm. Nobody knows, understands or can possibly explain why that preposterous creature does what he does. In fact there is no explanation — or better, there is only one explanation: the person in question is stupid.

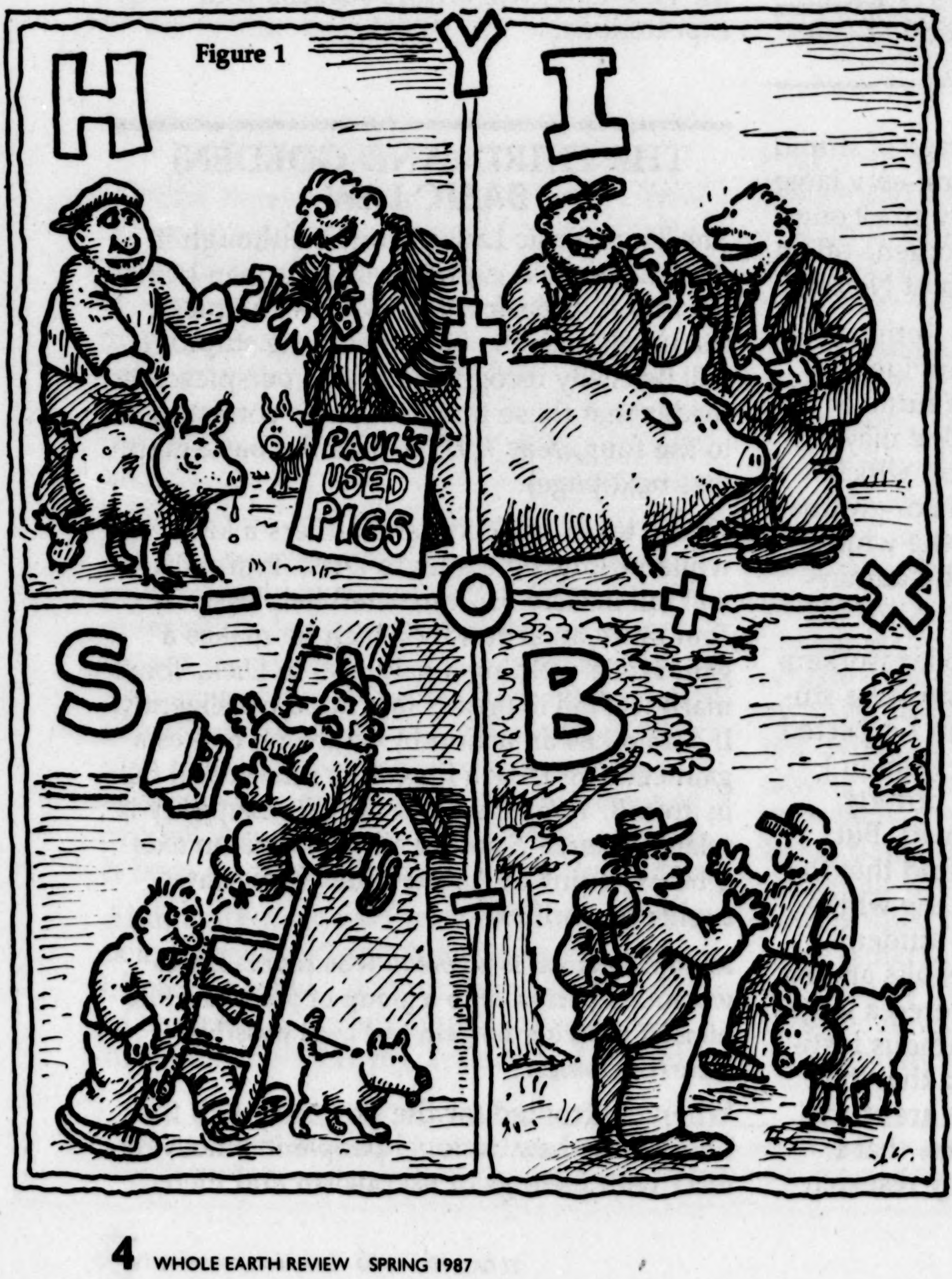


Figure 1

FREQUENCY DISTRIBUTION

Most people do not act consistently. Under certain circumstances a given person acts intelligently and under different circumstances the same person will act helplessly. The only important exception to the rule is represented by the stupid people who normally show a strong proclivity toward perfect consistency in all fields of human endeavours.

From all that proceeds, it does not follow that we can chart on the basic graph only stupid individuals. We can calculate for each person his weighted average position in the plane of figure 1 quite independently from his degree of inconsistency. A helpless person may occasionally behave intelligently and on occasion he may perform a bandit's action. But since the person in question is fundamentally helpless most of his action will have the characteristics of helplessness. Thus the overall weighted average position of all the actions of such a person will place him in the *H* quadrant of the basic graph.

The fact that it is possible to place on the graph individuals instead of their actions allows some disgression about the frequency of the bandit and stupid types.

The perfect bandit is one who, with his actions, causes to other individuals losses equal to his gains. The crudest type of banditry is theft. A person who robs you of 100 pounds without causing you an extra loss or harm is a perfect bandit: you lose 100 pounds, he gains 100 pounds. In the basic graph the perfect bandits would appear on a 45-degree diagonal line that divides the area *B* into two perfectly symmetrical sub-areas (line *OM* of figure 2).

However the "perfect" bandits are relatively few. The line *OM* divides the area *B* into two sub-areas, B_1 and B_2, and by far the largest majority of the bandits falls somewhere in one of these two sub-areas.

The bandits who fall in area B_1 are those individuals whose actions yield to them profits which are larger than the losses they cause to other people. All bandits who are entitled to a position in area B_1 are bandits with overtones of intelligence and as they get closer to the right side of the X axis they share more and more the characteristics of the intelligent person. Unfortunately the individuals entitled to a position in the B_1 area are not very numerous. Most bandits actually fall in area B_2. The individuals who fall in this area are those whose actions yield to them gains inferior to the losses inflicted to other people. If someone kills you in order to rob you of fifty pounds or if he murders you in order to spend a weekend with your wife at Monte Carlo, we can be sure that he is not a perfect bandit. Even by using *his* values to measure *his* gains (but still using *your* values to measure *your* losses) he falls in the B_2 area very close to the border of sheer stupidity. Generals who cause vast destruction and innumerable casualties in return for a promotion or a medal fall in the same area.

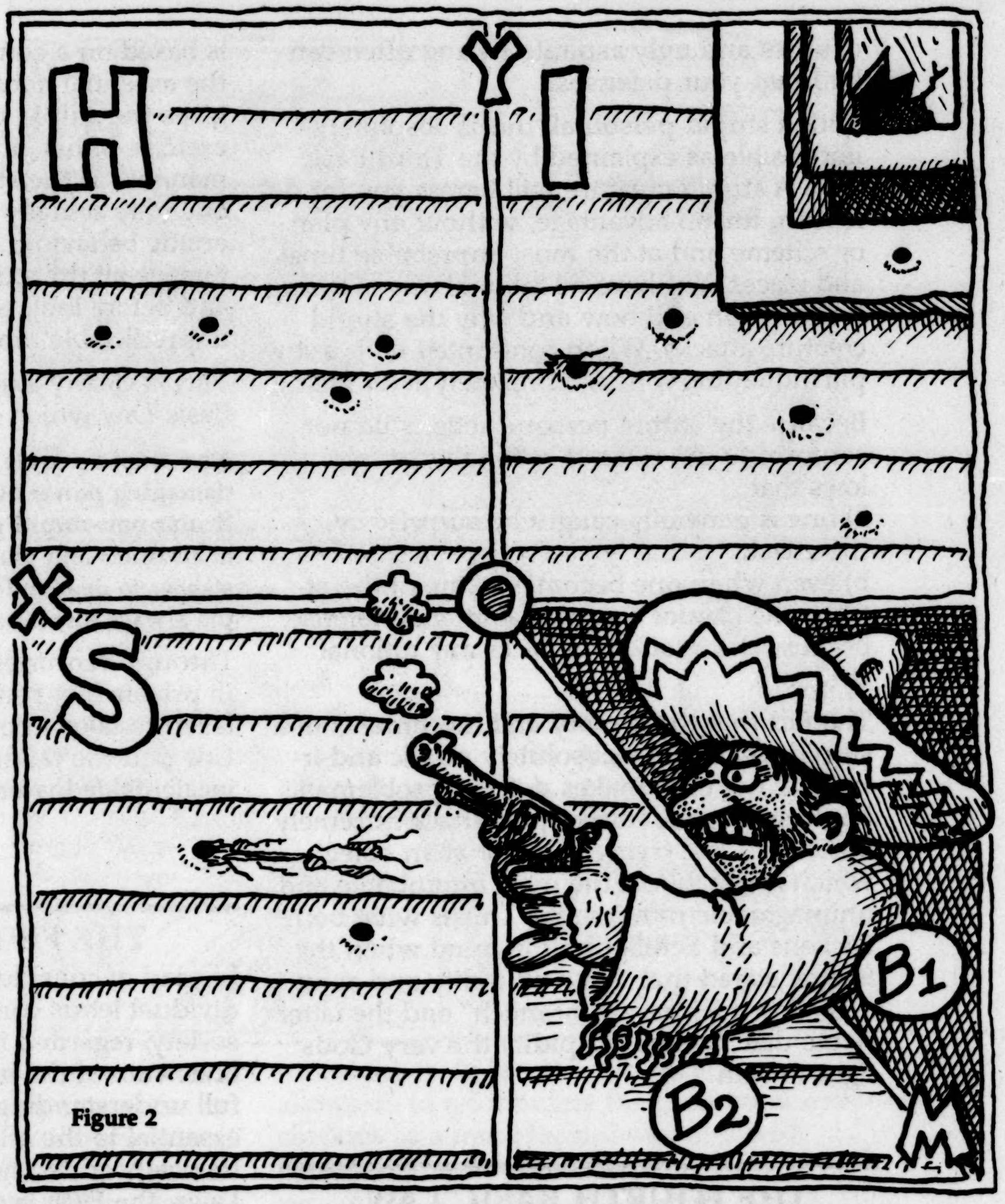


Figure 2

The frequency distribution of the stupid people is totally different from that of the bandit. While bandits are mostly scattered over an area stupid people are heavily concentrated along one line, specifically on the Y axis below point O. The reason for this is that by far the majority of stupid people are basically and unwaveringly stupid — in other words they perseveringly insist in causing harm and losses to other people without deriving any gain, whether positive or negative.

There are however people who by their improbable actions not only cause damages to other people but in addition hurt themselves. They are a sort of super-stupid who, in our system of accounting, will appear somewhere in the area S to the left of the Y axis.

THE POWER OF STUPIDITY

It is not difficult to understand how social, political and institutional power enhances the damaging potential of a stupid person. But one still has to explain and understand what essentially it is that makes a stupid person dangerous to other people — in other words what constitutes the power of stupidity.

Essentially stupid people are dangerous and damaging because reasonable people find it difficult to imagine and understand unreasonable behaviour. An intelligent person may understand the logic of a bandit. The bandit's actions follow a pattern of rationality: nasty rationality, if you like, but still rationality. The bandit wants a plus on his account. Since he is not intelligent enough to devise ways of obtaining the plus as well as providing you with a plus, he will produce his plus by causing a minus to appear on your account. All this is bad, but it is rational and if you are rational you can predict it. You can foresee a bandit's actions, his nasty manoeuvres and ugly aspirations and often can build up your defenses.

With a stupid person all this is absolutely impossible as explained by the Third Basic Law. A stupid creature will harass you for no reason, for no advantage, without any plan or scheme and at the most improbable times and places. You have no rational way of telling if and when and how and why the stupid creature attacks. When confronted with a stupid individual you are completely at his mercy.

Because the stupid person's actions do not conform to the rules of rationality, it follows that:
a) one is generally caught by surprise by the attack;
b) even when one becomes aware of the attack, one cannot organize a rational defense, because the attack itself lacks any rational structure.

The fact that the activity and movements of a stupid creature are absolutely erratic and irrational not only makes defense problematic but it also makes any counter-attack extremely difficult — like trying to shoot at an object which is capable of the most improbable and unimaginable movements. This is what both Dickens and Schiller had in mind when the former stated that "with stupidity and sound digestion man may front much" and the latter wrote that "against stupidity the very Gods fight in vain."

THE FOURTH BASIC LAW

That helpless people, namely those who in our accounting system fall into the *H* area, do not normally recognize how dangerous stupid people are, is not at all surprising. Their failure is just another expression of their helplessness. The truly amazing fact, however, is that also intelligent people and bandits often fail to recognize the power to damage inherent in stupidity. It is extremely difficult to explain why this should happen and one can only remark that when confronted with stupid individuals often intelligent men as well as bandits make the mistake of indulging in feelings of self-complacency and contemptuousness instead of immediately secreting adequate quantities of adrenaline and building up defenses.

One is tempted to believe that a stupid man will only do harm to himself but this is confusing stupidity with helplessness. On occasion one is tempted to associate oneself with a stupid individual in order to use him for one's own schemes. Such a manoeuvre cannot but have disastrous effects because a) it is based on a complete misunderstanding of the essential nature of stupidity and b) it gives the stupid person added scope for the exercise of his gifts. One may hope to outmanoeuvre the stupid and, up to a point, one may actually do so. But because of the erratic behaviour of the stupid, one cannot foresee all the stupid's actions and reactions and before long one will be pulverized by the unpredictable moves of the stupid partner.

This is clearly summarized in the Fourth Basic Law which states that:

Non-stupid people always underestimate the damaging power of stupid individuals. In particular non-stupid people constantly forget that at all times and places and under any circumstances to deal and/or associate with stupid people always turns out to be a costly mistake.

Through centuries and millenia, in public as in private life, countless individuals have failed to take account of the Fourth Basic Law and the failure has caused mankind incalculable losses.

THE FIFTH BASIC LAW

Instead of considering the welfare of the individual let us consider the welfare of the society, regarded in this context as the algebraic sum of the individual conditions. A full understanding of the Fifth Basic Law is essential to the analysis. It may be parenthetically added here that of the Five Basic Laws, the Fifth is certainly the best known and its corollary is quoted very frequently. The Fifth Basic Law states that

A stupid person is the most dangerous type of person.

The corollary of the Law is that

A stupid person is more dangerous than a bandit.

The result of the action of a perfect bandit (the person who falls on line *OM* of figure 2) is purely and simply a transfer of wealth and/or welfare. After the action of a perfect bandit, the bandit has a plus on his account which plus is exactly equivalent to the minus he has caused to another person. The society as a whole is neither better nor worse off. If all members of a society were perfect bandits the society would remain stagnant but there would be no major disaster. The whole business would amount to massive transfers of wealth and welfare in favour of those who would take action. If all members of the society would take action in regular turns, not only the society as a whole but also individuals would find themselves in a perfectly steady state of no change.

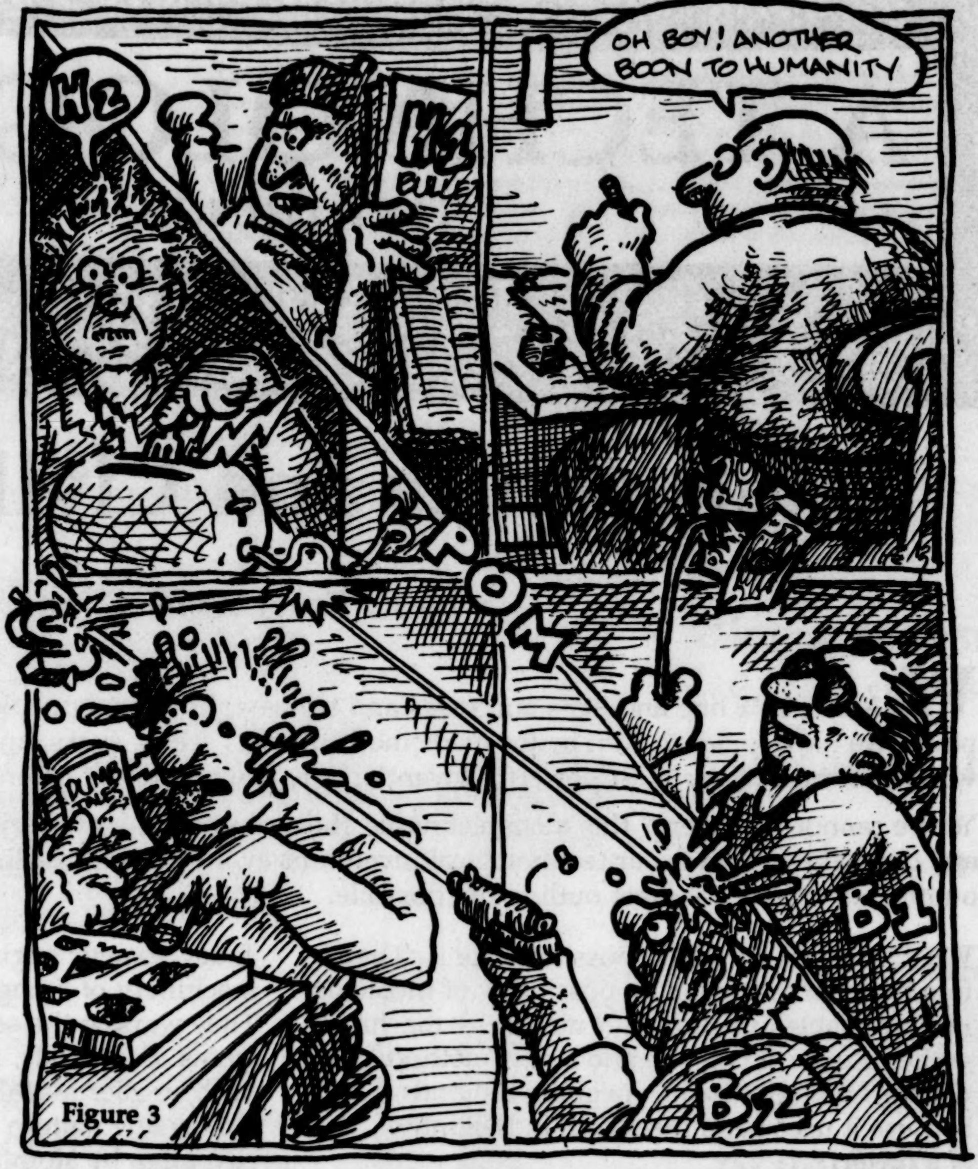


Figure 3

When stupid people are at work, the story is totally different. Stupid people cause losses to other people with no counterpart of gains on their own account. Thus the society as a whole is impoverished.

The system of accounting which finds expression in the basic graphs shows that while all actions of individuals falling to the right of the line *POM* (see fig. 3) add to the welfare of a society, although in different degrees, the actions of all individuals falling to the left of the same line *POM* cause a deterioration.

In other words the helpless with overtones of intelligence (area H_1), the bandits with overtones of intelligence (area B_1) and above all the intelligent (area I) all contribute, though in different degrees, to accrue to the welfare of a society. On the other hand the bandits with overtones of stupidity (area B_2) and the helpless with overtones of stupidity (area H_2) manage to add losses to those caused by stupid people thus enhancing the nefarious destructive power of the latter group.

All this suggests some reflection on the performance of societies. According to the Second Basic Law, the fraction of stupid people is a constant σ which is not affected by time, space, race, class or any other socio-cultural or historical variable. It would be a profound mistake to believe the number of stupid people in a declining society is greater than in a developing society. Both such societies are plagued by the same percentage of stupid people. The difference between the two societies is that in the society which performs poorly:
a) the stupid members of the society are allowed by the other members to become more active and take more actions;
b) there is a change in the composition of the non-stupid section with a relative decline of populations of areas I, H_1 and B_1 and a proportionate increase of populations H_2 and B_2.

This theoretical presumption is abundantly confirmed by an exhaustive analysis of historical cases. In fact the historical analysis allows us to reformulate the theoretical conclusions in a more factual way and with more realistic detail.

Whether one considers classical, or medieval, or modern or contemporary times one is impressed by the fact that any country moving uphill has its unavoidable σ fraction of stupid people. However the country moving uphill also has an unusually high fraction of intelligent people who manage to keep the σ fraction at bay and at the same time produce enough gains for themselves and the other members of the community to make progress a certainty.

In a country which is moving downhill, the fraction of stupid people is still equal to σ; however in the remaining population one notices among those in power an alarming proliferation of the bandits with overtones of stupidity (sub-area B_2 of quadrant B in figure 3) and among those not in power an equally alarming growth in the number of helpless individuals (area H in basic graph, fig. 1). Such change in the composition of the non-stupid population inevitably strengthens the destructive power of the σ fraction and makes decline a certainty. And the country goes to Hell. ■

A TECHNOLOGY OF
TINY THINGS

Nanotechnics and Civilization

by K. Eric Drexler

WE ALL COPY one another's successes and try new things. As people seeking wealth, health, and power we have come up with better medicines, missiles, seeds, socks, and video games. To create these we invent. Indeed our most powerful invention was the method of invention.

Yet we cannot "uninvent" this meta-technique short of smashing our civilization. Thus in our diverse and competitive world, our technological inventions evolve toward the limits of the possible. So to outline our future, we must outline the possible.

Whatever is, is obviously possible. Life is. Therefore that demonstrates the possibility of molecular machines able to build other molecular machines — the essence of both life and a new method called nanotechnology ("nano" meaning billionth, because it uses parts measured in billionths of a meter).

Whatever obeys natural law is also possible. Science now understands the laws of ordinary matter and energy well enough for most engineering purposes. Nanotechnology will enable us to build new kinds of things. Physical laws let us calculate what some of those things will be able to do.

The basic idea of nanotechnology is straightforward. We live in bodies made of atoms on a planet made of atoms, and how those atoms are arranged makes all the difference. Atoms are objects. They have size, shape, mass, and strength. A hammer is a large collection of atoms; a molecule is a small collection. Both are held together with the same forces. Molecular machines are simply machines made of molecular-scale parts having carefully arranged atoms.

Chemical reactions happen when two reactive molecules bump together in the right orientation, making atoms rearrange to form new molecules. Nanotechology assemblers will be molecular machines that grab reactive molecules and bring them together in a controlled way, building up a complex structure a few atoms at a time.

Today, genetic engineers reprogram the molecular machinery of living cells to make new molecules. They work at the scale of proteins — thousands of atoms. Eventually, nanotechnologists will build new, smaller machinery, and program it to make almost any pattern of atoms a designer might specify, atom by atom. Imagine an industrial robot arm, directed by a computer. It can build complex things by putting parts together, one at a time. To picture an nanoassembler, imagine that the arm is made of the smallest possible parts, each containing a couple to several thousand atoms. This makes it less than a millionth the size of the industrial arm (and lets it make motions in a millionth the time). This arm also builds complex things by putting parts together, one at a time, but the parts are reactive molecules and each assembly step is a chemical reaction.

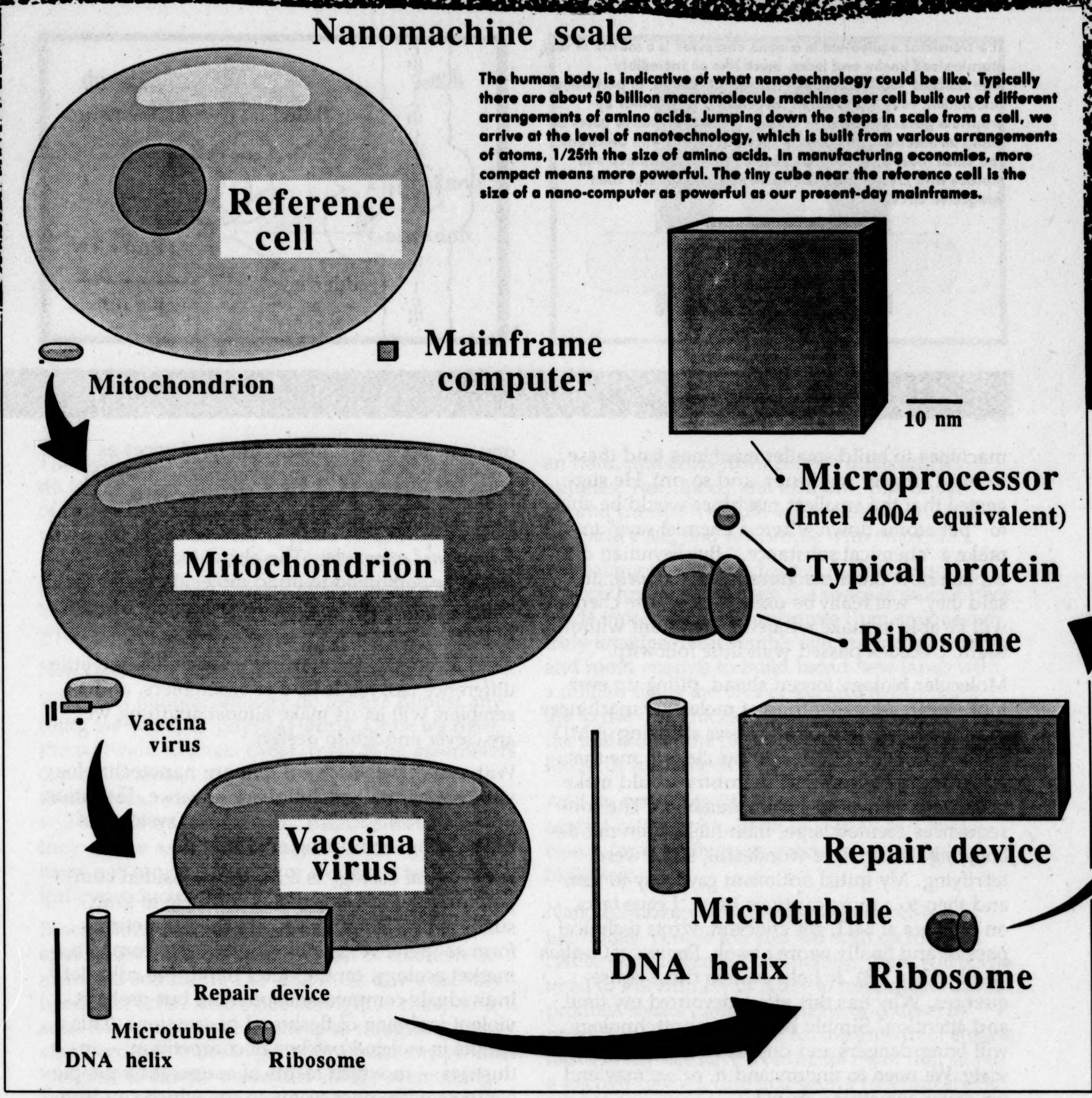
The areas closest to nanotechnology today are microelectronics and biotechnology. Microelectronic engineers can design complex circuits, even computers on a chip, but they cannot arrange atoms as they please. As a result, microcomputers are billions of times bulkier than the nanocomputers of the future. Biotechnologists can use the molecular machinery of life to build things atom by atom, but they can't (yet) design new molecular machines. They have only begun to learn the art of protein engineering.

With assemblers, molecular engineering will become easy, almost like building with Tinkertoys. Assemblers will be able to add carbon atoms

---

Interdisciplinary science, the rule among scientists a hundred years ago, is as refreshingly productive as it has ever been but so difficult and rare in the current style of modern science that it is with glad tidings that I can introduce someone with a degree in it. Meet Eric Drexler, who took his S.B. degree from M.I.T. in interdisciplinary science, followed by a Master's in Aeronautics and Astronautics, also at M.I.T. His research across these fields was one of the main components of our Space Colonies *issue in Spring 1976, which demonstrated that emerging technologies need to be cultivated — a knack Eric is refining. Recently he founded the M.I.T. Nanotechnology Study Group to develop the self-replicating science of self-replicating molecular machines, introduced in this article, and described in full in* Engines of Creation *(WER #53, p. 83).*

—Kevin Kelly



Nanomachine scale

The human body is indicative of what nanotechnology could be like. Typically there are about 50 billion macromolecule machines per cell built out of different arrangements of amino acids. Jumping down the steps in scale from a cell, we arrive at the level of nanotechnology, which is built from various arrangements of atoms, 1/25th the size of amino acids. In manufacturing economies, more compact means more powerful. The tiny cube near the reference cell is the size of a nano-computer as powerful as our present-day mainframes.

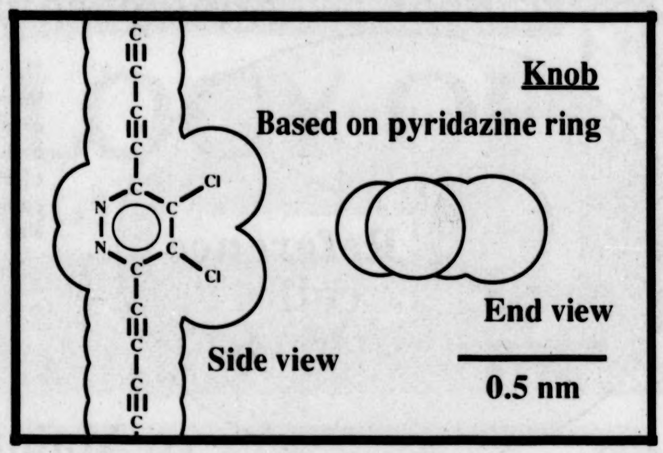
to an object, a few at a time, building up a piece of diamond-fiber composite. Dozens of times stronger than ordinary metals, this material could be used to make almost anything — a car, a dome, a rocket — far stronger and lighter than anything we can build today. How would you cut and shape this material to make something? In general, you wouldn't. Just as a tree has no need to carve wood, so assembler-based production systems would have no need to carve their products: they would make them true to form in the first place, atomically perfect.

Life proves that systems of molecular machines can replicate themselves. One bacterium can copy itself in about twenty minutes, giving rise to many tons of duplicates in a few days. Other replicating molecular machines form complex patterns, such as crabgrass, redwood trees, blue whales, and human brains. Molecular machines have given Earth coral reefs, an oxygen atmosphere, and a biosphere.

And just as the self-replicating molecular machinery of a seed can make a tree, so a properly programmed replicating assembler will be able to make a house, a computer, or a spaceship. This has implications for the cost of things: A tree uses sunlight and common materials to build itself, and a tree costs almost nothing to make — it takes no human effort, only room and time. With assembler-based technology, anything can be as inexpensive (pound for pound) as firewood, because it can be produced in essentially the same way, by growing it. (No, this analogy doesn't mean replacing forests!)

There is no new science in nanotechnology, only new engineering. The possibility of nanotechnology was implicit in the science known over 30 years ago, though no one saw it then. During the 1940s and 1950s, biochemistry revealed more and more of the molecular machinery of the cell. In 1959, physicist Richard Feynman touched on a similar idea in a talk: he spoke of using small

The transistor equivalent in a nano-computer is a matrix of tiny, atomic-sized knobs and locks, much like an incredibly miniaturized, old-fashioned calculating machine. To perform a calculation, rods are shuffled, depending on whether appropriate gates are open or closed. (Transistors make gates by filling an electronically porous speck of silicon with electrons.) The small mass of these rods permits them to displace and replace with crystalline rapidity many times greater than integrated circuits.



machines to build smaller machines (and these to build smaller machines, and so on). He suggested that the smallest machines would be able to "put atoms down where a chemist says" to make a "chemical substance." But Feynman didn't explain how these machines were to work, and said they "will really be useless," because chemists will be able to make whatever they want without them. Decades passed with little followup.

Molecular biology forged ahead, piling up ever more impressive examples of molecular machinery in viruses and cells. While I was studying at MIT in the winter of 1976, it became clear to me that advances in biology and chemistry would make possible what we now call assemblers. The consequences seemed large, then huge, then mind-boggling. Some were wonderful, some were terrifying. My initial optimism gave way to fear, and then to a more cautious hope. I gave talks on the idea at MIT, got criticism, wrote technical papers, and finally wrote a book, *Engines of Creation* (*WER* #53, p. 83), to help explain these consequences. Why has this effort devoured my time and attention? Simply because nanotechnology will bring dangers and opportunities on a grand scale. We need to understand it, or we may end up doing something stupid.

The Evolution of Nanotechnology

Several paths lead toward assemblers and nanotechnology: they include biotechnology, chemistry, and micromanipulators.

- *Biotechnology:* Protein makes up most of the molecular machinery of life. Eventually, we will learn to design new molecular machines made of protein, including protein machines for building better, non-protein machines. These, in turn, will be able to build almost anything.
- *Chemistry:* Molecular machinery need not be made of protein. As our knowledge of chemistry advances, we will eventually learn to design and synthesize molecular machines like those made of protein, but different. These will include molecular machines for building better molecular machines, which in turn can build almost anything.
- *Micromanipulators:* Physicists have made instruments for moving a sharp, minute tip of matter with atomic precision. Eventually (perhaps) someone may learn how to use similar devices as manipulators to build molecular machines for building better molecular machines, which in turn can build almost anything.
- *Combined approaches:* The above techniques might be combined to build molecular machines able to build better molecular machines, which in turn . . .

As you can see, the starting point will make little difference. All roads lead to assemblers, and assemblers will let us make almost anything we are clever enough to design.

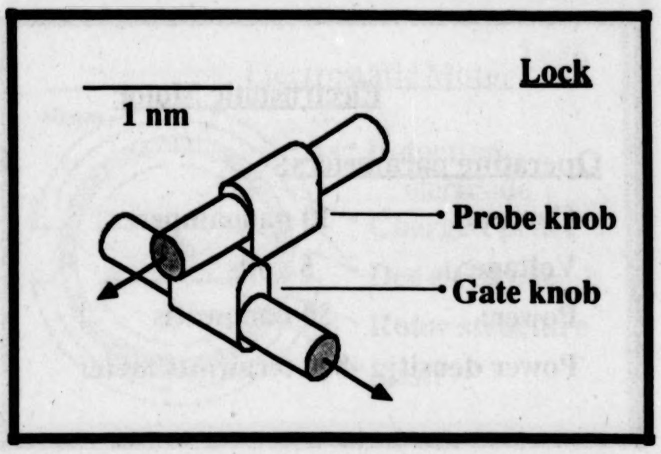
With many paths toward it open, nanotechnology will be a natural, evolutionary advance. Evolution occurs in ecologies, i.e., in complex systems of cooperating, competing entities.

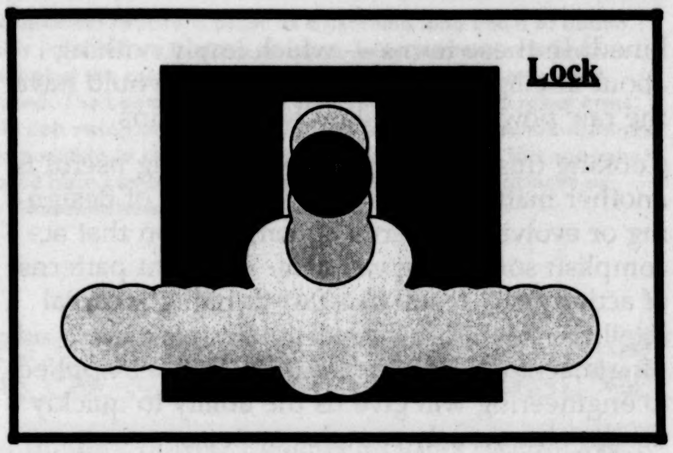
A biological ecology is a huge, multisided competition in which organisms compete to grab sunlight or each other's flesh; they sometimes form cooperative, symbiotic grabbing-teams. In a market ecology, on the other hand, the rules let individuals compete or cooperate, but prohibit violent grabbing of flesh and possessions. This results in isolated patches of competition — industries — in which teams of cooperating people compete with other teams to see which can best cooperate with suppliers and buyers around the world.

The world political system is partly a pacifist, market ecology, and partly a militarist, biological ecology. But in one regard, both the competition to serve people and the competition to dominate them push in the same direction — toward more advanced technology based on better control over the structure of matter — in short, toward nanotechnology. Nanotechnology will make possible both better goods and better weapons.

In a world full of competing companies and governments, only global disaster or global domination could block the advance of technology. This seems to be a fundamental principle; if so, it must guide our plans.

We need to consider what is possible with advanced technology so we can better guide its emergence. A brief sketch is in order, covering what nanotechnology can do for us, what it can't do for us, and what it might be used to do to us.





This will set the stage for a look at what we might do to get ready. (If you want to believe in the sort of future that newspapers typically assume — where the next century is just a jazzed-up, rundown, or wrecked version of this one — then please keep a firm grip on your world view, stop reading, and don't consider the implications of what you've already read.)

New Options

What can nanotechnology do for us? Almost anything we want, in physical terms. Once we have the software to direct them, replicating assemblers can build almost anything, including more of themselves, without human labor. Because they will handle matter atom by atom, as trees do, they can be as clean as trees, or cleaner. They need not produce smoke or sludge or toxic chemical byproducts.

Since shoes and ships and sealing wax — and spaceships and computers — can be made from elements common in air and rock, raw materials need cost little. And since sunlight is cheap and solar collectors can be as cheap as crabgrass, energy also need cost little. In general, almost any product imaginable can be made dirt cheap, even taking full account of energy costs and environmental side effects.

Assembler-based systems can replace modern manufacturing (and factories, and industrial corporations as we know them). Today, rich and poor countries alike shred and pollute the landscape with crude, inefficient technologies. With nanotechnology, all can be richer than the richest countries are now, yet do far less harm.

Just as trees do, systems of replicating assemblers can construct big, complicated structures, even extremely large pieces of hardware at low cost. By manufacturing tunneling machines cheaper, pound for pound, than firewood, nanotechnology will open up the underground frontier. There is as much room near Earth's surface below ground as there is above, yet we scar the landscape with highways and railroads. Why? Mostly because of costs. With cheap tunneling and construction, we could build a transportation system based on evacuated tunnels and magnetically levitated vehicles, giving transcontinental service in under an hour, and cross-town service in about two minutes. Fast, quiet, and efficient, this underground transport would leave more open land for Earth's life, and for people who enjoy it.

By making spacecraft cheaper than firewood, nanotechnology can open the space frontier. Space holds more room and resources than anyone can truly imagine. Near Earth's sun are matter, energy, and room enough to build broad new lands with a million times the area of Earth. We can bring life to the dead rocks of space, carrying forward the tradition of the plants and animals that brought life forth from the oceans to the land.

And by spreading life to space, we can insure it against catastrophe. Earth is a small and fragile basket for something so precious as our only biosphere.

Nanotechnology can also provide stand-ins for life. Today, people kill and eat both carrots and cattle. With advanced technology, there will be no need to kill animals in order to have meat. Cattle produce steaks (unintentionally, of course) by providing an environment for the growth of muscle tissue. Why not have a brainless beast that sits in a kitchen cabinet, one that grows fresh meat and vegetables as a tree grows apples? By growing meat outside animals, we could remove a major excuse for killing them.

So far, I've described how nanotechnology can be used to give us more of familiar things — goods, services, living space — in new and better ways. But these new ways of making things will also be able to make new kinds of things.

One important application will be the further miniaturization of computers. Detailed study shows that assemblers could build the equivalent of a large, modern computer in about 1/1000 of the volume of a typical human cell. This would be a mechanical computer (they're easier to analyze than electronic computers), but moving parts on this scale can be small and fast enough to make the computer faster than today's electronic machines.

A desk-top machine could then have more raw computational power than any computer in the world today. In fact, it could have more raw power than all the computers in the world today combined. In these terms — which imply nothing about intelligence — such a machine would have the raw power of a million human brains.

Cooking this raw power into something useful is another matter — one of software and of designing or evolving patterns of computation that accomplish something valuable. The right patterns of activity will result in a fast-thinking artificial intelligence. (Otherwise all we have is a fancy adding machine.) This artificial intelligence applied to engineering will give us the ability to quickly design enormously complex systems.

With this sort of design ability, we will be able to build molecular machines able to repair living tissue. In the body, we see molecular machines that enter tissue (white blood cells), that enter cells (viruses), that recognize molecules (antibodies), and that take apart and build all the parts of a cell (digestive enzymes, and the molecular machinery of cell reproduction). Build molecular machines with a similar range of abilities, place them under the control of sophisticated computer systems, and the result will be a system able to enter, diagnose, and repair a cell, tissue, or organ. The software seems a greater challenge than the hardware.

Since we live in bodies made of molecules, a technology able to rearrange molecules will mean a revolution in medicine. Today, physicians cannot heal tissue; they can only provide the conditions for it to heal itself — if it can. And some tissues, like missing limbs or damaged spinal cords, can't. With cell repair systems based on nanotechnology, medicine will gain surgical control on the molecular level, healing tissue almost regardless of its condition.

Molecular-level repair can extend lifespan almost indefinitely (though the nature of the universe does not permit genuine immortality). And long life would not mean prolonged aging and deterioration. Wrinkled skin, clogged arteries, poor memory — these result not from some magic influence of the calendar upon a life force, but from the disordering of patterns of cells and molecules. Restoring youthful patterns would restore youthful health.

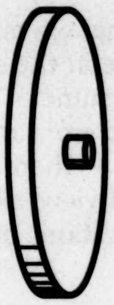
The biosphere, too, has molecular problems. Many toxic waste molecules have entered the groundwater; too many carbon dioxide molecules have entered the air. With replicating assemblers (and enough knowledge) we can build plant-like devices with "roots" that reach far into the ground, capturing and destroying toxic molecules. We can even take on the biggest cleanup, reversing the greenhouse effect by converting carbon dioxide back into oil and coal and putting them back in the ground. (Remember, molecular machines made our atmosphere in the first place.) With nanotechnology, we can heal both our bodies and our biosphere.

Electrostatic Motor

Operating parameters:

Current:	**10 nanoamperes**
Voltage:	**5 volts**
Power:	**50 nanowatts**
Power density:	**800 terawatts/meter^3**

Flywheel



Radius:	**50 nanometers**
Thickness:	**10 nanometers**
Mass:	**0.3 femtograms**
Frequency:	**1 gigahertz**
Rim Speed:	**300 meters/sec.**
Energy:	**7 femtojoules**
	or 45,000 eV

In general, these applications of nanotechnology can mean wider choices for people. They allow independence from many of today's limits, escapes from poverty, from dependence on a global economy, and from short lifespans. They allow lives in wild futures like those dreamed of by some science fiction authors; equally, they allow lives in disciplined voluntary communities like those dreamed of by some new age writers.

Nanotechnology, being based on molecular machines, is compatible even with lives like those of our ancestors, and not only through its renunciation. Neolithic tribes made use of molecular machinery, packaged in yeast, seeds, and goats. It is only the hidden complexity of natural nanomachinery that makes possible agriculture on a human scale. Nanotechnology will follow this pattern, hiding immense complexity in easy-to-tend, self-reproducing systems.

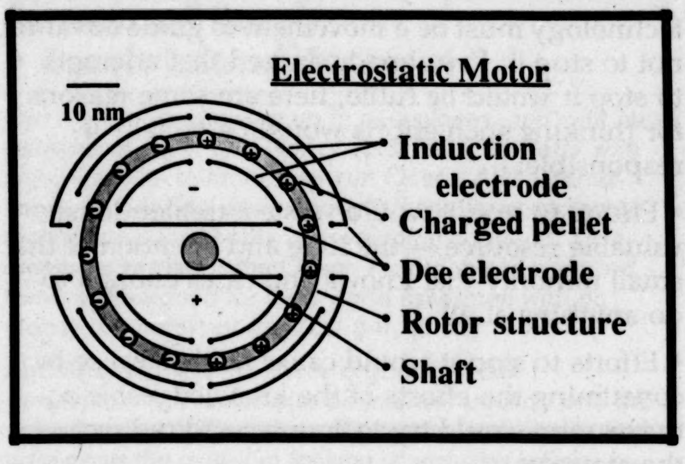
With the coming of assemblers and nanotechnology, the world could be transformed for the better — if you prefer health to sickness, life to death, wealth to poverty, choice to limits, diversity to uniformity, and a clean environment to one burdened by the wastes of a coarse technology.

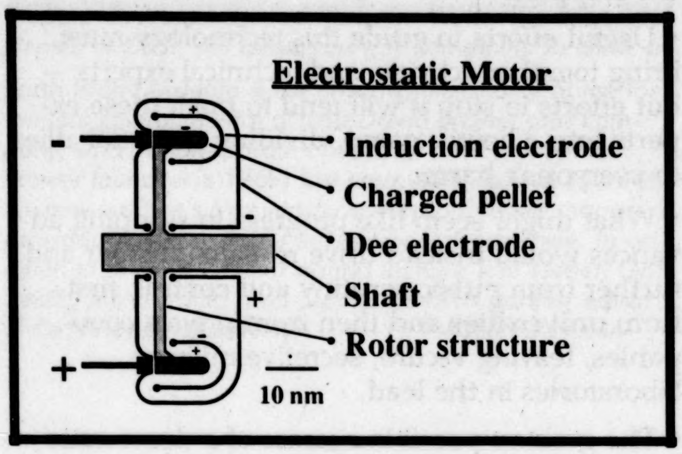
But if you prefer calm to change, watch out.

The Limits to Growth

Change exclusively for the better is far from guaranteed. Nanotechnology will not make everything possible.

The world — though so much larger than the Earth — cannot yield infinite resources. Exponential growth of population, whether with long lives or short, would overrun available resources within a few thousand years, even allowing for interstellar flight. Nanotechnology offers a breathing





Biochemical reactions occur as a protein's long chain of amino acids is folded up in small sections, in carpenter's-rule fashion, engaging the covalent bond between each corner to keep it locked. The bending arms become, in essence, tiny robot arms that can swing out on the molecular level. Other nano-machines are possible to create, including a rotating motor. The one proposed here can be linked either to other nano-machinery or to macroelectronics as a switch.

space, but it cannot permanently cure the problem of population.

As there are limits to resource quantity, so there are also limits to hardware quality. No matter how you rearrange atoms, some things cannot be done. Natural law (whatever it may be) determines what matter is and what it can do. It will set bounds to the strength of materials, the speed of computers, and the rate of travel. And nanotechnology itself is but a vast extension of chemistry. It can no more change atomic nuclei than alchemists could transform lead into gold, and for the same reason: chemical technology is not nuclear technology.

Nanotechnology will push many limits far, far back, but it will not eliminate them. In many areas, it will carry us forward to firm and lasting limits to growth, to an era (at last!) of stable technologies. Of course, we also face practical limits set by our situation and ourselves. With our best efforts, we cannot accomplish everything that is physically possible. Indeed, in a competitive world, we sometimes can't even avoid things that are possible.

Dangers and Disruptions

Replicating assemblers will be a powerful technology, posing obvious dangers of accident and abuse. The issue here isn't whether assemblers and nanotechnology will raise problems on the scale of highway deaths or industrial accidents — they might or might not. The issue is whether they will smash civilization or destroy the biosphere.

An industrial base able to double in minutes, rather than decades, can serve as a potent basis for military power: Imagine an arms race in which one side can multiply its production a thousandfold in a single day. Further, nanotechnology will make possible potent new weapons, such as devices that act like programmable "germs" for germ warfare. These abilities make nuclear weapons look tame.

World-wrecking abuse of nanotechnology is a real threat. World-wrecking accidents are an unreal threat. True, a combination of ingenuity and criminal negligence could produce a replicator able to destroy the biosphere, but this is far from the ordinary meaning of "accident." It will be easy to make replicating assemblers that survive only with special help. For these limited replicators to run wild, they would have to do more than break down, they would have to gain special new abilities.

Genetically engineered organisms have stirred fears of accidental runaway plagues, and replicating assemblers may seem similar. Engineered organisms are generally modified with an eye to making them useful but incompetent (imagine a microscopic version of a modern domestic turkey), yet to survive in nature they would have to compete with the most effective organisms nature has evolved. As you'd expect, they tend to lose, and hence pose no threat. But engineered organisms are at least organisms — they are related to things that once evolved and survived in the natural world. Replicating assemblers, in contrast, need have no resemblance to anything that can survive unaided in nature. They would then be no more likely to accidentally escape and run wild than a can opener is to accidentally turn into a spaceship and fly to the Moon.

Even if we avoid the abuse of nanotechnology — avoiding world war or the boot of technological dictatorship — we will still face disruptions from basically beneficial uses. Replicating assemblers will sweep away the foundations of our present economy. Mining, manufacturing, and shipping will wither in the face of machines able to make almost anything, anywhere, using just dirt, air, and sunlight. Hardware will matter little; software for making hardware will matter a lot.

Replicating assemblers will be able to make almost anything as cheaply as firewood, and in just as decentralized a way. Modern corporations chiefly coordinate people to work as parts of vast, complex machines; when complex machines become small, and homesteads can grow anything from

The densest logic circuit ever sculpted onto a semiconducting chip reaches toward the smallness of nanotechnology. The line width of the circuit is .5 micrometers (about 1/150th the width of a human hair). By comparison, true nanomachines would be one million times smaller. The chip section shown here is part of a larger circuit known as a Programmable Logic Array developed by IBM.

tractors to supercomputers, who will need today's huge organizations? With its use in production and medicine, nanotechnology can enable us to eliminate poverty and disease, but it will also eliminate most corporations and industries. Will corporations try to stop it, and perpetuate misery to protect their position and profit? And will dictators then forge ahead, to seize absolute power?

What is to be done?

Advances in many fields carry us toward nanotechnology, and all major powers are pursuing those advances. As a technology of tiny things made of ordinary materials, it cannot be monitored from satellites. I see no way to stop such a thing, short of invading every country and filling the world with incorruptible police. In a world armed with hydrogen bombs and full of real people, this somehow seems unlikely. If we can't stop nanotechnology, we must try to understand it, live with it, and use it as best we can.

Are good outcomes possible? It seems so, though I'm not offering any odds. This sketch of nanotechnology is too quick and rough to support any detail on this matter, but two points seem solid:

First, we need better understanding as individuals and as a society. Our survival may depend on our ability to tell sense from nonsense regarding a complex technology that doesn't exist yet. The nonsense will be abundant, no matter what we do: any field on the borders of science fiction, quantum mechanics, and biology is well positioned to import a lot of prefabricated crap; any field where experiments and experience aren't yet possible is going to have great trouble getting rid of that crap. When someone says "nanotechnology" and begins to expound, beware!

Second, a political movement to deal with nanotechnology must be a movement to guide advance, not to stop it. I've already argued that attempts to stop it would be futile; here are some reasons for thinking such efforts would be socially irresponsible:

- Efforts to stop it would waste a tremendously valuable resource — the time and attention of that small minority that knows and cares enough to do anything at all.

- Efforts to stop it would cause further waste by consuming the efforts of the knowledgeable activists who would try to counter and redirect the stoppers.

- Useful efforts to guide this technology must bring together activists and technical experts — but efforts to stop it will tend to push these experts into a hostile camp, dividing potential allies to everyone's harm.

- What might seem like progress in stopping advances would instead drive research further and further from public scrutiny and control, first from universities and then from private companies, leaving secure, secretive military laboratories in the lead.

- The greatest possible success of a democratic movement to block this technology would merely drive it still further from public scrutiny and control, by ensuring that the democracies do not lead the way.

Since stopping it seems impossible, and attempts to stop it seem irresponsible, why not apply the time-tested sour-grapes principle and conclude that stopping it isn't even something to want? After all, blocking nanotechnology would condemn millions of people to misery and disease, and condemn the Earth to further ravaging by desperate people seeking food and shelter with crude technologies. In contrast, success in guiding it could make many great dreams come true.

What is to be done? First we need to become better informed about the basic facts of the coming revolution, about its real opportunities and dangers. Then we need to build a broad movement, one with room for people who are pro-progress, but who take dangers seriously, and for people who are pro-caution, but who recognize the momentum of technological advance. With a broad movement — diverse, but not fatally polarized — we will have a broad debate and will become yet better informed.

As nanotechnology comes near, it will seem more real. Concern will grow, and with it the sort of activism, knowledge, and organization that can make a difference in the world. If we hang together and hammer out a sound approach, we just might be ready when the breakthroughs arrive. We have years to prepare, to gather our wits and our strength, and to seek a measure of wisdom.

If we succeed, we could end up alive and free in a world worth living in. ■

Annals of Earth • Earth Island Journal

*Old friends are showing up in new places, and with new periodicals. John and Nancy Jack Todd, formerly with New Alchemy Institute, now run Ocean Arks International, where they design environmentally appropriate technologies for people in developing countries. One ingenious project is the Ocean Pickup, a sail-powered trimaran designed for third world fishermen with no money for motors or fuel (**CQ** #41, p. 62).*

***Annals of Earth** is the house organ for these developments, plus articles on science, politics, and the environment. William Irwin Thompson is a contributing editor and the issue I'm looking at includes articles by William O. McLarney and Malcolm Wells. The news in **Annals of Earth** will leave you with something to chew on.*

*Earth Island Institute is the new organizational home for seminal environmental activist David Brower and company, who departed from Friends of the Earth (which Brower founded in 1969) last year. **Earth Island Journal**, the new institute's Macintosh desktop-published magazine, provides first-rate global environmental coverage. In addition to Brower, familiar names include Tom Turner, Gar Smith, Jim Harding, and Stephanie Mills (former editor of **CoEvolution Quarterly**).* —*Richard Nilsen*

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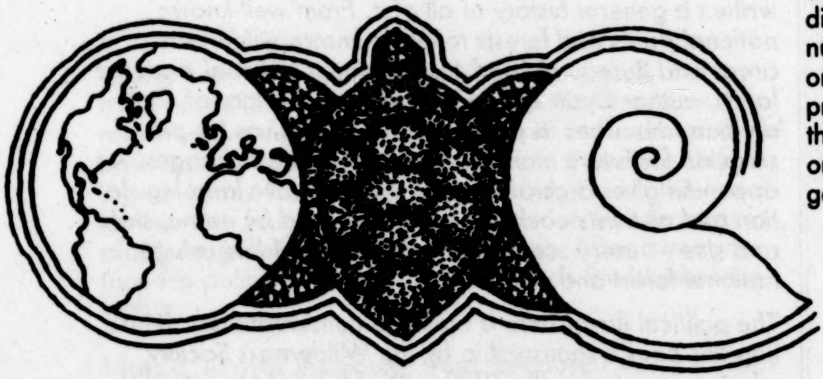

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Locke said that it was the act of taking something out of the commons that began a piece of property. The social act of adding labor to the commons produced property. . . .

If we stop to consider the historical context of the Lockian idea of property we can see that Bhopal in India is literally the last gasp of the concept of private property. The industrialist has looked upon the atmosphere as a commons, a wild that can be taken and through labor turned into property. . . .

If consciousness is the activity that produces value, then even the industrially unproductive have value: the unemployable, the old, the young, the senile and the dependent. Even a retarded human being or a senile person has the capacity to turn light into language and unconscious into conscious, and so they must be of value in our Commonlife. And, indeed, in traditional, pre-industrial cultures, such people were valued. —*Annals of Earth*

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When I was teaching the humanities at M.I.T., I was told by the registrar that the engineers tended to take their elective courses in economics and political sciences, but that scientists tended to take their elective courses in the arts and the humanities. If there are two sub-cultures, they are not split between the sciences and the humanities, but between Archimedean and Pythagorean modes of imagination. —*Annals of Earth*

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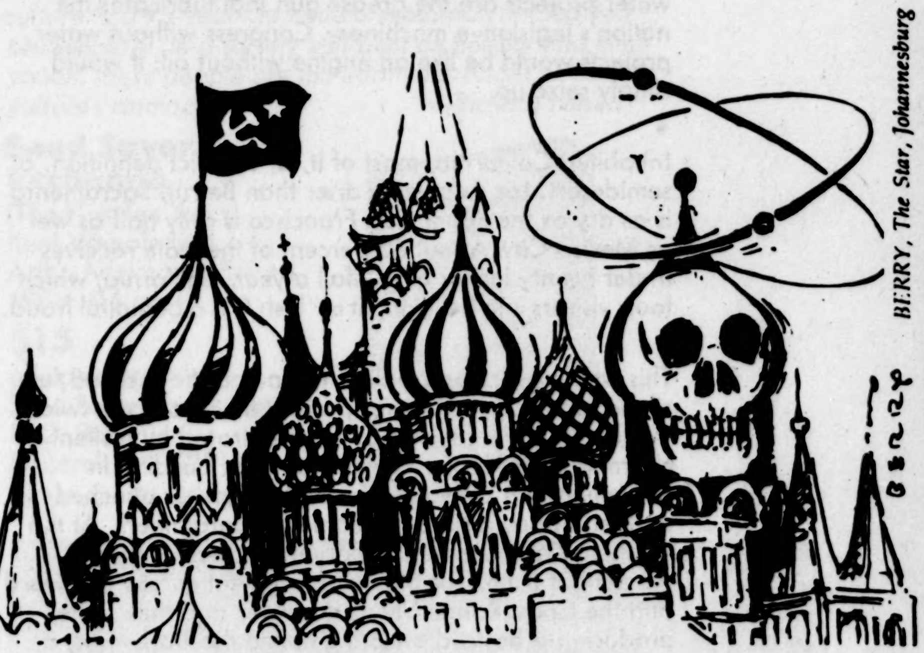
While healthy coral reefs are among the most productive of all natural ecosystems, they are unusual in being "islands" of productivity set down in the very unproductive tropical oceans, so that the local effects of their destruction are unusually severe. As in their much discussed neighbors, the tropical forests, most of the nutrients and energy are at any moment in flux. Not only are coral reefs productive, they get a lot of production out of relatively little "raw material." As in the tropical forests, there is very little "topsoil," or organic matter in storage, a factor which retards regeneration on damaged reefs. —*Annals of Earth*



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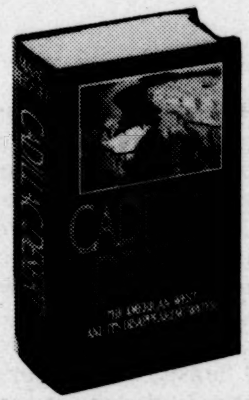
The recently released Soviet report on the Chernobyl accident is extremely detailed and forthright. . . . According to the Soviet draft report, it took only 40 seconds from the time that the turbine began to run down until the core "exploded." . . .

In a steam explosion, the hot nuclear fuel shatters on contact with emergency cooling water, massively increasing the surface area of the fuel and releasing all the bound energy immediately to the surrounding environment. This has been considered a very rare possibility, even in meltdowns. One recent US estimate concluded that a steam explosion would occur only once in ten thousand core melt accidents. —*Earth Island Journal*

Cadillac Desert

A book about dams and canals might seem rather tame fare, even if the water that is controlled makes life in the western desert third of America possible. Marc Reisner has taken seven years of exhaustive research and a passionate environmentalist perspective and has written a popular history of western water projects that reads like good adventure fiction. He has interviewed virtually all of the players still living, including the significant coup of gaining access to former Bureau of Reclamation Commissioner Floyd Dominy's recollections and personal files. Each chapter easily stands alone, so if you want just the story of how Los Angeles got its water from the Owens Valley, or why the Teton Dam collapsed, it's easy to get. The last time a book brought me this close to the workings of unbridled bureaucracies, political power and money was reading Robert Caro's biography of Robert Moses, **The Power Broker**. *The immense size of these water projects keeps Reisner hustling for superlatives, but in the end the wild west meets the era of limits, even if it is happening a drop at a time.* —*Richard Nilsen*

Cadillac Desert
Marc Reisner
1986; 582 pp.
$22.95
($24.45 postpaid) from:
Viking Penguin, Inc.
40 West 23rd Street
New York, NY 10010
or Whole Earth Access



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To a degree that is impossible for most people to fathom, water projects are the grease gun that lubricates the nation's legislative machinery. Congress without water projects would be like an engine without oil; it would simply seize up.

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Inhabited California, most of it, is, by strict definition, a semidesert. Los Angeles is drier than Beirut; Sacramento is as dry as the Sahel; San Francisco is only half as wet as Mexico City. About 65 percent of the state receives under twenty inches of rainfall a year. California, which fools visitors into believing it is "lush," is a beautiful fraud.

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This whole hydrologic ballet, this acrobatic rise and fall of megatonnages of water performed on a stage twice the length of Pennsylvania, is orchestrated by a silent choreographer in the Water Resources building in Sacramento: a Univac Series 904 computer punched and fed floppy disks by a team of programmers. At the south end of the valley, the aqueduct arrives at its moment of truth. The Sierra escarpment curves westward and the Coast Range bends eastward and they mate, producing a bastard offspring called the Transverse, or Tehachapi, Range. The Tehachapis stand between the water and Los Angeles, which sits in the ultramontane basin beyond.

The water is carried across the Tehachapis in five separate stages. The final, cyclopean one, which occurs at the A. D. Edmonston Pumping Plant, raises the water 1,926 feet — the Eiffel Tower atop the Empire State — in a single lift. To some engineers, the Edmonston pumps are the ultimate triumph, the most splendid snub nature has ever received: a sizable river of water running uphill. At their peak capacity, if it is ever reached, the Edmonston pumps will require six billion kilowatt-hours of electricity every year, the output of an eleven-hundred-megawatt power plant. Moving water in California requires more electrical energy than is used by several states.

Mules lugging sections of the Los Angeles Aqueduct into place. At the time, no motorized vehicle existed that could haul anything so heavy.

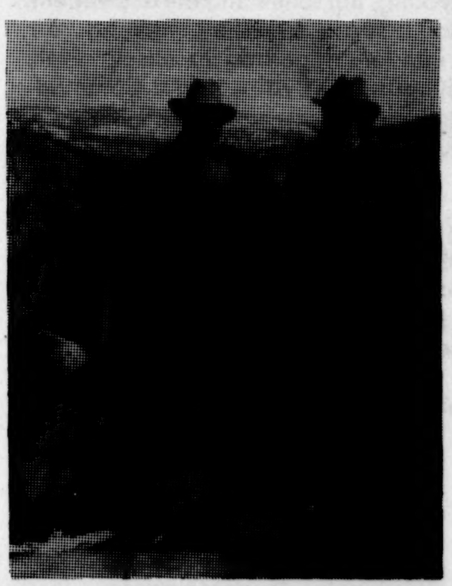
Looking like a masterwork left by the Romans, Theodore Roosevelt Dam stands athwart the Salt River in Arizona. The Bureau of Reclamation's first great structure — and the prototype of all high, curved-arch dams — Roosevelt Dam was constructed entirely of huge stone blocks hewn from cliffs in the Salt River Canyon.

These American Lands

The federal government owns roughly one-third of all American lands, and this book is the first time anyone has written a general history of all of it. From well-known national parks and forests to lesser-known wilderness areas and Bureau of Land Management national resource lands, author Dyan Zaslowsky charts the history of each division, describes its present status, and gives his prescription for future management and needed changes. An appendix gives a chronology of major public land legislation and also lists each unit of federal land by name, state and size — every scenic trail, wild river, wildlife refuge, national forest and more.

The political flavor here is mainline conservationist, befitting this book's sponsorship by the Wilderness Society, which originated in the 1930s out of the fight to establish the Appalachian Trail. Aside from being an obviously handy reference work, this book's real contribution is in furnishing historical perspective. Saving wild places has never been anything but a struggle since the effort began back in the nineteenth century. It is a process larger than one battle and longer than one administration or even one lifetime. —*Richard Nilsen*

These American Lands
Dyan Zaslowsky and
the Wilderness Society
1986; 404 pp.
$22.95
(must be ordered through
local bookstores)
or Whole Earth Access



President Theodore Roosevelt and John Muir, Sierra Club founder and staunch defender of the national park idea, at Yosemite National Park, 1903.

The Orchard Almanac

Outstanding homemade book here. I've been waiting 15 years for something like this on this subject.

***The Orchard Almanac** explains how to raise fruit without eating a lot of poison in either the process or the product. It's a book about the fungi and insects that live in orchards and how to manage them. A strict organic approach is explained as well as integrated pest management techniques that stress using the least amount of synthetic pesticides possible. Neither system will work without a hand lens, a thermometer, and some recordkeeping. These details plus what (and what not) to spray, when and how much to spray, and where to buy supplies, are all carefully charted and explained. The same information applies to one tree or one thousand. This is a book designed to be used.* —Richard Nilsen

THE ORCHARD ALMANAC
A Spraysaver Guide

The Orchard Almanac
(A Spraysaver Guide)
Stephen Page
and Joseph Smillie
1986; 145 pp.
$8.95
($9.95 postpaid) from:
Spraysaver Publications
P. O. Box 392
Rockport, ME 04856

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Taking orchard waste to the dump is an option, but my town's landfill is too near and I know that the pests will return to another orchard, if not mine. Some dumps have incinerators, which is a good solution. If you are disposing of wormy fruit, seal it in plastic bags to kill the insect larvae. I've found that the larvae-ridden fruit ferment in plastic bags, pickling the worms inside. After a year, I turn the pulp into the compost or mulch the blueberries with it.

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I fuss a lot over the young trees, because I've found that without exception the trees that had the best start are the ones that give the best harvest in later years.

•

Apple Maggot flies (July) are probably the easiest insects to catch with visual traps. In unsprayed orchards, the emergent flies are attracted to bright yellow rectangles, eight inches to ten inches, which mimic the wavelength of foliage on which the flies feed before mating and laying their eggs in the fruit. In sprayed orchards, the flies seem to be more aggressive, ready to lay eggs almost immediately after emergence. In this case they are better trapped on three inch diameter dark red spheres covered with Tanglefoot. These spheres trap the females as they jump from fruit to fruit in search of a suitable place to lay their eggs. Ron Prokopy, entomologist at the University of Massachusetts, has achieved over 90 percent control of apple maggots in his test orchard using six sphere traps per tree. These traps are inexpensive, reusable and very effective against the ever-present apple maggots.

•

Young trees are easy to monitor for insects because of their size. Look at the terminal growth for aphids and check weekly for leafrollers. It is easy to hand pick insects while the trees are small, but when infestations are high it is better to use insecticides than to take a chance with pest damage. I stop spraying for aphids in July, because it has been shown that some aphid activity on the terminals will actually help harden off the new growth for winter.

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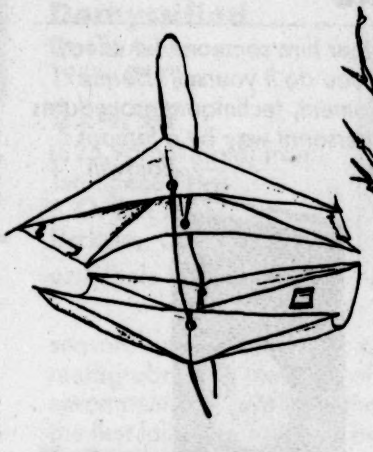
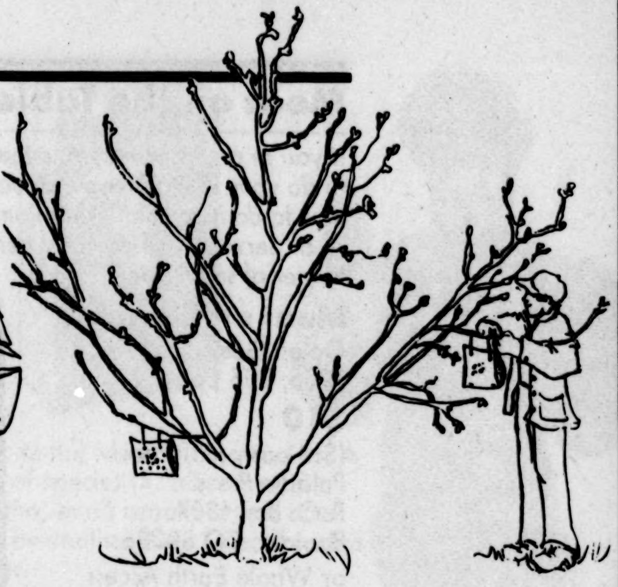
On poorer soils I would rather plant standard trees with vigorous rootstocks. Standard trees are definitely more forgiving of part-time orchardists.



Pheromone trap.



Placement of insect traps is critical to good monitoring results.

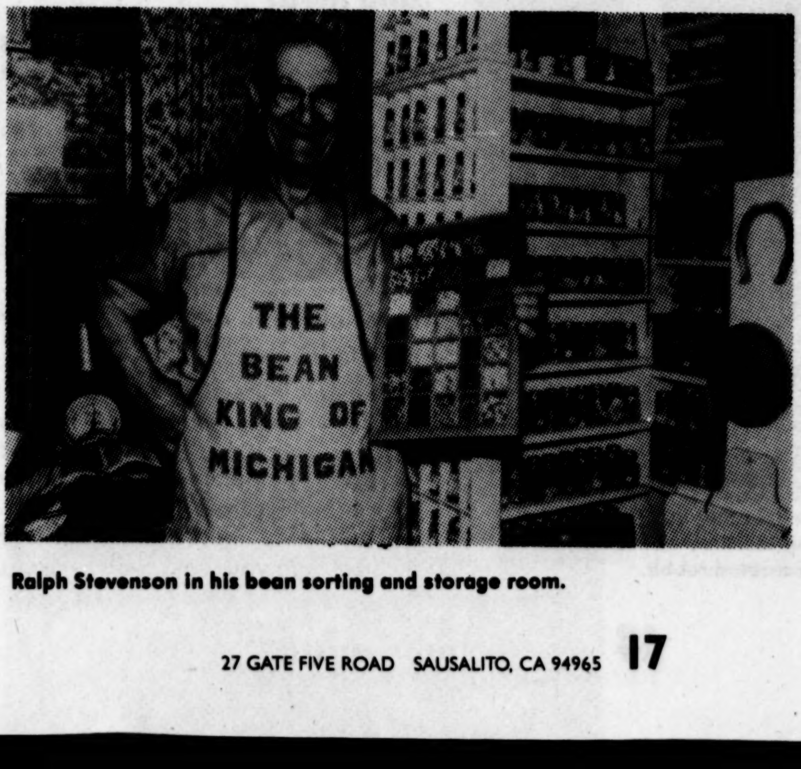
Seed Savers Exchange: The First Ten Years

Back issues of publications from the Seed Savers Exchange are as rare as some of the vegetable varieties its members swap seeds of to grow and preserve. Here in one massive book are ten years of the best articles, talks, interviews and question-and-answer sessions. It is a book of history and lore, but also of expertise and technique made accessible to the average gardener, often via series of well-captioned photos. If you want to know how to hand-pollinate corn or squash, or learn how to save tomato seed from a person who grew 280 varieties to get his technique for handling that seed really perfected, this is the place.

The people who share their knowledge run the gamut from young researchers for the U.S. Department of Agriculture to a 95-year-old tomato seedsman named Ben Quisenberry. In a society hell-bent on novelty and innovation, these people are the earthy librarians of our culture's stomach. —Richard Nilsen

Seed Savers Exchange

Seed Savers Exchange
(The First Ten Years)
Kent Whealy and
Arllys Adelmann, Editors
1986; 416 pp.
$15
postpaid from:
Seed Savers Exchange
P. O. Box 70
Decorah, IA 52101
or Whole Earth Access


THE BEAN KING OF MICHIGAN

Ralph Stevenson in his bean sorting and storage room.

Meat on the Table

If you're a carnivore, you either hire someone (in effect) to do your killing for you, or you do it yourself. Here's how to do it yourself — equipment, technique, procedures — all served up in a chatty personal way by a famous hunter of small game. —J. Baldwin

Meat on the Table
Galen Geer
1985; 206 pp.
$10
($13 postpaid) from:
Paladin Press
P. O. Box 1307
Boulder, CO 80306
or Whole Earth Access

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MARSH RABBIT *Description:*
Length: 15-19 in. Weight: 2½-3 lbs.
Coloration: *Body sides and front and back legs:* buff/brown. *Back:* dark buff to brown. *Belly, chest,* and *rump:* buff. *Tail:* white under tail. *Underfur:* off-white to buff.

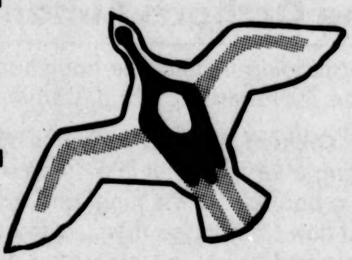
Distribution: Florida, southern Georgia, and north along the coast to North Carolina.

Preferred habitat: Edge areas near lakes, streams, and swamps. Swims easily and is often found in water.

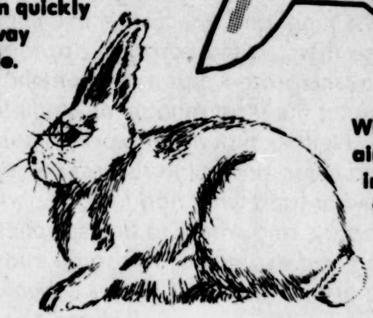
Table fare: Excellent.

●

To locate cottontails, first locate an edge. The edge will be nothing more than the border between one type of cover and another. The edge may be formed by a fence, creek bed, or growth of shrubs. Usually the edge will be between dense growth and more open growth. The dense growth provides the cottontails with safety areas, and the more open areas are feeding grounds. If you are searching an area for the first time, walk along the edge and note the number of trails leading from the light area to the dense area. The rabbits won't go very far into the dense cover, only far enough to hide and feel safe.



Quail require a solid hit in the black area. Shot will penetrate the breast (the grey area) without bringing down the bird. Quail hit in the grey area below the black kill zone will fall but then quickly limp away and hide.



When using a rifle, aim for the point right in front of the cottontail's eye for a quick kill without damage to the meat.

●

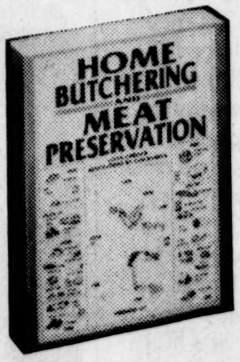
Hunting squirrels has long been a respected small-game sport as well as a major source of food when the country was being settled. Because of the squirrel's natural wariness and small size, demands were placed on American gunmakers for accurate rifles. Squirrels are still an important food source and top the list of small-game animals regarding table fare.

To be a successful squirrel hunter today demands patience and determination. Although small, squirrels have sharp eyes and ears and a fair sense of smell. Today's squirrel hunter should don camouflage clothing for the hunt, including either a camouflage net to cover the face or camouflage paint.

Home Butchering and Meat Preservation

As an ex-urbanite vegetarian homesteader, author Geeta Dardick soon found out that animals down on the farm do more than produce milk and eggs. They also produce males, who eat but produce no milk or eggs. Before her barnyard overwhelmed her, she began eating what she was raising and has never looked back. The result is a book that reflects the fact that everyone is a beginner sometime. The attitude is humane, the directions encouraging, and the how-to photos and diagrams are much more detailed than what is usually found in books on this subject. —Richard Nilsen

Home Butchering and Meat Preservation
Geeta Dardick
1986; 271 pp.
$12.45
($14.45 postpaid) from:
Tab Books
P. O. Box 40
Blue Ridge Summit, PA 17214
or Whole Earth Access



The liver that has been removed from the eviscerated rabbit.

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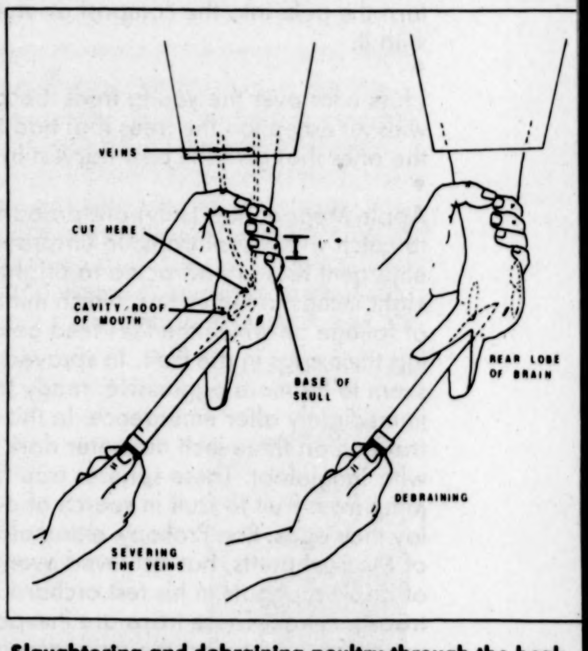
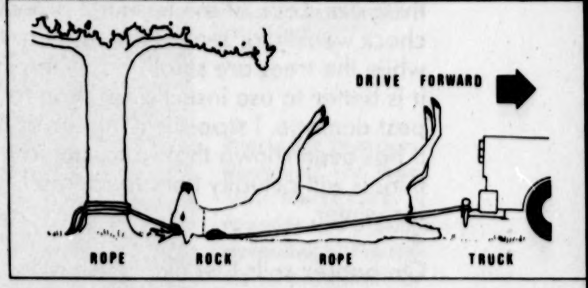
Insert your knife between the rabbit's hind legs, and cut the pelvic bone. Now slit down the belly. To make sure you don't cut the intestines by mistake, keep your finger ahead of the knife as you slice downward. If your knife strays, it will hit your finger, and not the rabbit's bladder. Cut all the way down to the chest. This is a much longer incision than you make with chickens.



Slaughtering and debraining poultry through the beak.



Skinning a deer with a rock and a truck.

Russula xerampelina is one of the few Russulas worth gathering for the table. Note the shape, which is fairly typical of the genus Russula, and note how the stalk fractures like a piece of chalk.

Mushrooms Demystified

The best news for mushroom lovers (and those who want to learn to love mushrooms) is the long-awaited appearance of the new, completely revised edition of David Arora's superlative guidebook. First published in 1979, ***Mushrooms Demystified*** *established the Santa Cruz-based author as a leader among amateur mycologists, but the original edition worked best as a regional field guide and lacked color pictures. The new edition is much larger and will serve to identify mushrooms of the whole continent north of Mexico. It also contains the most beautiful and accurate color photos of any mushroom book on the market.*

David Arora writes about his fungal friends with reverence, love, and abundant good humor — a rarity in works of this sort. His selection of species is comprehensive, his descriptions useful and readable, his advice about edibility right on the mark. This is the best single guidebook to American mushrooms, easily worth the price, a joy to own and peruse, absolutely helpful for those who have been collecting and enjoying wild mushrooms for years as well as for those with no experience at all.

—Andrew Weill, M.D.

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In eastern North America the Russulas, like the milk caps (*Lactarius*), are often prominent during muggy weather when other mushrooms are relatively scarce, while in the Pacific Northwest and Rocky Mountains their season more closely coincides with that of other fungi. In our area Russulas run rampant throughout the mushroom season, subject, of course, to the whim of the weather. A metagrobolizing melange of species (*R. albonigra*, *R. xerampelina*, *R. cyanoxantha*, et al) usually erupts after the first fall rains, followed by another burst (spearheaded by *R. emetica*) in the winter.

Russulas are among the most maligned of all mushrooms. Even veteran mushroom hunters treat them mercilessly — throwing them over their shoulder or crushing them underfoot with disparaging remarks like "Oh, it's a JAR" ("Just Another Russula"). Their omnipresence, anonymity, and poor culinary reputation are partly responsible, I am sure. Also, their brittle flesh is irresistible to those who like to smash things. Furthermore, they have a habit of forming "mushrumps" in the humus which resemble those made by *Boletus edulis*. Frustrated boletivores can be uncompromisingly brutal (see p. 546), and their habitual hunting grounds are inevitably strewn with the broken bodies of Russulas. However, mushrooms were not created for the exclusive enjoyment of *Homo sapiens*, and it is wrong to judge them accordingly. Those who follow in your footsteps will appreciate your sensitivity and self-restraint.

Most of the mild-tasting Russulas are edible, but this should not be taken as a signal to sample them indiscriminately. Always identify what you intend to eat! Those which redden or blacken and/or have a peppery (acrid) taste should be avoided — at least some cause vomiting and diarrhea or worse. Thorough cooking may render them edible, but it hardly seems worth the effort or risk.

Mushrooms
Demystified
David Arora
1986; 959 pp.
$24.95
($25.95 postpaid) from:
Ten Speed Press
P. O. Box 7123
Berkeley, CA 94707
or Whole Earth Access

Growing Shiitake Commercially

Shiitake are those incredibly delicious black mushrooms that are a key ingredient in Chinese and Japanese food. For a long time available only in dried form at Oriental groceries, they are now appearing fresh at fancy produce stores, often selling for $12 a pound or more. Demand for fresh shiitake far exceeds supply at the moment, for everyone who tastes them wants more. Sauteed and sprinkled with soy sauce, they are "vegetarian steak," and besides, they have antiviral, anticancer, immune-stimulating, and cholesterol-lowering properties. Commercial cultivation of these mushrooms (on hardwood logs or sawdust) is becoming a popular cottage industry in many parts of the country. Bob Harris's book is the most complete and readable guide on the subject. It gives step-by-step instructions, from gathering and preparing suitable logs to collecting the fruits of one's labors. This book is well written and produced, with many helpful photographs taken by the author in Japan. Bob Harris is also the founder of Mushroompeople (P. O. Box 159, Inverness, CA 94937), a company that provides supplies and technical assistance to mushroom growers. *—Andrew Weil, M.D.*

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Production Numbers

A cord of oak logs, each of which is 36-40 inches long x3-4 inches in diameter, contains approximately 250-320 logs. A light inoculation of spawn uses about 30 plugs per log, so a cord of wood will use about 10 bags of spawn (1000 plugs per bag). If it is purchased in large quantity, the spawn will cost about $150. The equivalent amount of sawdust spawn costs about $100.

Working in teams of 3 to 5 people, about 125 logs per man per day can be inoculated. For example, in Japan four men can inoculate and wax 10,000 forty-inch logs in two days. One cord of wood will produce about 2.5 pounds of mushrooms per log over the life of the log whether the mushrooms are forced in one year or naturally flushed over 3 to 4 years. This means a yield of about 550-750 pounds of mushrooms per cord. At a wholesale price of $4 per pound this can mean a net return after costs of about $2000-$2500 per pound. These are very conservative numbers since the wholesale price is often higher, especially when fruiting is timed to coincide with the high market.

Growing Shiitake
Commercially
Bob Harris
1986; 72 pp.
$10
($11.50 postpaid) from:
Science Tech Publishers
701 Ridge Street
Madison, WI 53705

Incubating logs stacked in an x-frame pattern on the slope of a hill.

Shiitake fruiting on an oak log.

Prolonged Visits to the Soviet Gulag

Hard Labor Camp No. 220047, in Minsk, USSR, holding religious prisoners.

COMPILED BY KESTON COLLEGE

It is a blessing, I find, to be opposed by someone who is living out a moral belief anchored beyond everyday reasonableness, drawing, it seems, on some unseen, unshakeable power. Some part of that subterranean integrity lingers as a gift, even if his opinion doesn't. In my disagreement with Father Stefan Pavlenko, the Russian Orthodox Archpriest who heatedly opposed our use of an AmerRussian flag beneath an Orthodox cathedral on our last cover, I met this kind of faith. By our second conversation on the phone, Father Pavlenko told me, "I believe things happen by divine appointment. It is no coincidence that I came out just at the moment you were photographing. There is a larger reason for this."

Father Pavlenko is one of a community of people who possess a faith that is punishable in the Soviet Union. "Can we," he asked me, "even begin to join a country that outlaws beliefs? That banishes them? I will show you real people, arrested by real laws. For having a personal faith. Their only request to the outside is that their story be told."

There is a tremendous anti-Soviet bias in our culture that, whatever its origins, now impedes further peace between us. It takes uncommon honesty to overcome such resident prejudice. No country should feel smug about political prisoners because all have them. But I think the truth about the Gulag, and the spiritual prisoners it lashes down, like all truth, will hasten peace.

Amnesty International, a non religious organization which, among other things, monitors the imprisonment of noncriminal dissenters, says that what follows is only the tip of the archipelago. No Jews, Muslims, or other faithful are mentioned here because the material Father Pavlenko passed on to us was compiled by a decidedly Christian group. The photographs of some of the prison yards come out of a morosely fascinating book called The First Guidebook to the Prisons and Concentration Camps of the Soviet Union, *by Avraham Shifrin, published in Switzerland by Stephanus Edition in 1980. It supplies explicit directions to each camp (with maps) should you want to visit prisoners (legal and apparently possible) or spy. Unfortunately, as far as our research can tell, it's out of print, though not out of date.*

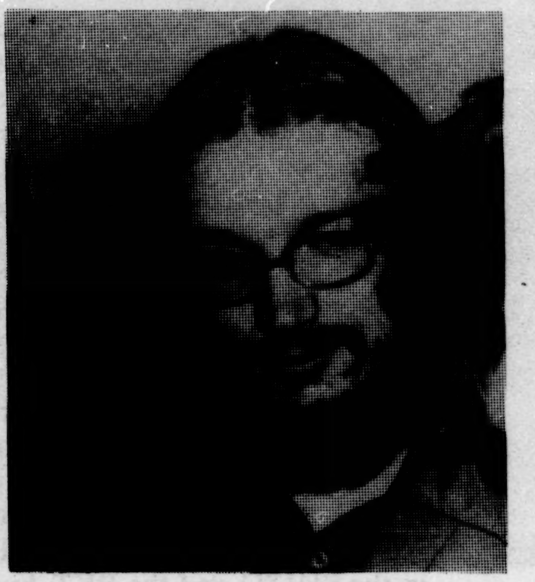
—Kevin Kelly

THIS ARTICLE CONTAINS DETAILS OF known religious prisoners of conscience in the USSR. The word *known* is very important: there are frequent indications that there are more religious prisoners currently in prisons, labour camps and psychiatric hospitals than we know about; for example, reports that there are a large number of prisoners in one particular camp, when we have details of only one or two prisoners held there. How many of these unknown prisoners there are is impossible even to guess. Then there are probably a smaller number of known prisoners of conscience, imprisoned for human rights activity, who are in fact religious believers, and whose stand for the rights of others is deeply motivated by their faith, but whose religious beliefs are not indicated in any of our sources. Nevertheless, Keston College is now aware of 398 religious prisoners of conscience of very diverse religious background, of whom 333 are Christians of various denominations.

Prisoners formerly but no longer listed are either confirmed released or presumed to have been released. We have excluded all prisoners who were due to complete their sentences before publication in anticipation of their release, although this is an increasingly dangerous assumption.

The number of prisoners who have been rearrested in labour camp before completion of their sentence has increased sharply in the last decade. A new article of the Criminal Codes — article 188-3 of the RSFSR Code — came into force on 1 October 1983, enabling the prosecution of prisoners for violation of camp regulations. It is virtually impossible for prisoners to exist in a camp without breaking some regulation or other and while many minor infringements are ignored by camp officials it is easy to victimise a prisoner by punishing him or her for trivial offences. We know of four prisoners who have been prosecuted under this article; others have been prosecuted for

Two Russians imprisoned for being Hare Krishnas. Above, Yuri Alekseievich Fedchenko, now in a labor camp in the Staropol Territory. Right, Olga Hamidovna Kiseleva, in a labor camp in Mozhaysk-2.



Alexander Ogorodnikov, 27, leader of Christian seminars, arrested on the train from Redkino to Kalinin on November 20, 1978 on charges of "parasitism" — being without recognized employment.

alleged "slander of the Soviet state and social system" simply for discussing the reasons for their arrest with other prisoners.

Janis Rozkalns wrote to his wife about the journey from Riga to the political camp no. 37 in the Perm region of the Urals:

"In January 1984 we began our journey to the political prisoners' camp. After lengthy travel in a caged railway wagon, we arrived at Pskov prison and were placed in cells, with barred windows and no glass. The filth was indescribable.

"An open lavatory bucket stood in the middle of the cell. The walls and ceiling constantly dripped water and draughts reached every corner. When we awoke during the night, covered in insect bites, our boots were floating around us. Leeches, bedbugs and earwigs were everywhere. Despite the severe frost outside, we had not so much as one blanket for covering. I asked the guard for help, pointing out that I had had tuberculosis, a fact noted in my documents. His reply was that he could do nothing. The days went by, and illnesses occurred. After 1½ weeks we were moved to another cell. There was a constant stream of hot water along the floor, and the cell was full of steam. Ten days later we spent 48 hours in transit: constant draughts, with hunks of bread and cold water as our only sustenance. The next prison in which we made a stop brought a surprise — I was forced into a shower-room with a number of mentally ill detainees. After this I was held for two weeks in an unheated isolation cell. This was followed by four days of transportation in a prisoners' wagon: bare floors, bitingly cold drafts.

"Upon arrival in prison in Perm, I was placed in a basement cell. My health had begun to deteriorate noticeably by this time, and I asked for medical aid. Three days later, and only after one of my fellow-prisoners threatened to go on a protest hunger-strike, did a nurse appear and hand me several tablets through the grille of the cell door. By this time I was running a high temperature and sweating profusely, but was not permitted a change of clothes. The nurse stated that the issue of blankets was limited to one, and that the prison administration refused to allow my transfer to the infirmary. It took me days finally to gain permission to be X-rayed. The diagnosis: severe pneumonia. Despite this, I was not given any warm clothing or injections for two weeks."

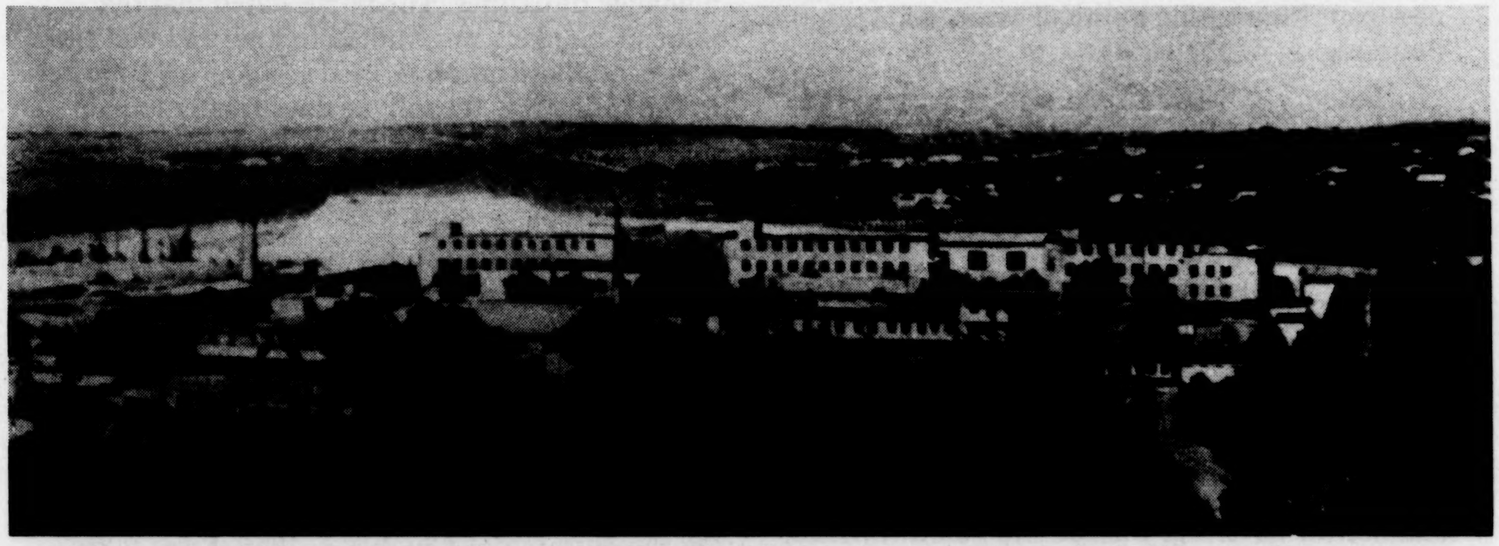
From the testimony of J. V., 1976:

"In the KGB prison, the investigator constantly repeated, 'Only the mentally ill would turn against the Soviet state. The fact that you made anti-Soviet placards and leaflets is a sign of your insanity.' I did not want to talk with the investigator at all for fear of blabbing something out. So, for keeping silent, I was told that I was insane. On the morning of October 8, 1976, I was taken out of my cell and informed that I was to undergo psychiatric examination in a psychiatric hospital. And so, I was searched; my belongings were returned. And then I was packed into a Red Cross van and driven over the bridge on Liteinyi Pros-pekt to the psychiatric prison hospital on Akademik Lebedev Street.

"The next morning, I was taken for treatment instead of to an examination. I was to be given injections, but I refused. Force was used; the orderlies twisted my arms. I continued to resist, explaining that I was not sick but was brought here for examination only! They succeeded, however, in giving me a few injections after all. I lost consciousness . . . I came to in bed."

Letter from Alexander Ogorodnikov to his mother from labor camp, 1986:

. . . Under the circumstances, I must repeat my persistent request, a decision I reached after much thought and suffering. You must see that death appears to be the only way to end my agony, the only release from torment. I have already committed the moral sin of attempting to commit suicide; on the 1st, 9th and 17th of May 1984 I secretly cut my veins, but every time I was discovered, unconscious, but still alive, and was nursed back to health with blood transfusions. So I beg of you again — please appeal to the Presidium of the Supreme Soviet to show me a measure of mercy by ordering my execution by firing squad to release me from lifelong torment; the painfully slow torture has already dragged into its eighth year. I am deprived of living conditions worthy of a human being, deprived of books, culture, I am tormented by hunger, cold in the SHIZO and the PKT, humiliated, neglected and totally deprived of rights. They even forbid me to pray, and my cross has been torn from my neck on numerous occasions. I have spent a total of 659 days on hunger strikes for the right to have a Bible and a prayerbook and have spent 411 days in punishment cells. All this is detrimental to my health, ruining it step by step and squeezing out the last spark of hope and life. This life has been turned into a nightmare. It is slow, dragged-out murder behind strong, gloomy walls. It must be my fate to remain in isolation and be charged with endless crimes. I was forced into 659 days of hunger for the right to have a Bible — was there a single Christian anywhere who offered to support my demand before the regime that wars on God? It frightens me to think that maybe there was not. Ahead lie another 8 years of my sentence — 3 in camp plus 5 in exile. Yes, but Shchukin, the KGB investigator in Perm, has promised what amounts to a life term: he showed me a file of materials they are already preparing for further charges against me, this time under Article 70, Para 2, and that means another 10 years plus 5 in exile. And despite this, there is only silence. A human being is being tortured to such an extent that death seems a welcome deliverance, yet few care one way or another. After all, they do finish off the mortally wounded to ease their suffering; overworked horses are shot, aren't they? Then why am I deprived of the opportunity to die and am doomed instead to lifelong torment? Suicide is a terrible, unforgivable sin, but if my persecutor kills me, he will release me from suffering. . . ." □



Prison camp P/YA 328/67 in Sokiryany, Chelnovtsy Region, USSR. Religious prisoners are detained in building on right.

WHAT RELIGIOUS BELIEVERS ARE ARRESTED FOR

MANY HUNDREDS of religious believers are arrested in the U.S.S.R. each year, but only a small minority are prosecuted. Some are released after investigation, most are dealt with "administratively" — the equivalent of minor motoring offences. Fines of up to 50 roubles ($65) may be imposed for organising or leading unregistered worship. 10-15 days detention can be ordered for failing to obey instructions to disperse when a service is interrupted by militia (police). Many believers suffer "only" bruises from rough handling by police, discrimination in housing, employment or education, or confiscation of precious religious literature.

There are two basic groups of religious prisoners. The first is those sentenced for purely religious activities, such as organising religious meetings for worship or study, teaching religion to children or printing religious literature. These "offences" are covered by two articles of the Criminal Codes of the Soviet republics (see I).

The second group is those sentenced for other actions arising from their beliefs. These include conscientious objectors (see II) and those who protest at violations of human rights, including freedom of religion (see III). In some cases prisoners have been convicted both for religious activities and for protesting at religious persecution. In other cases it is sometimes hard to define the extent to which religious faith has motivated human rights activities. Where there are definite indications of religious sympathies we have given the prisoner the benefit of the doubt.

Prisoners of both groups have also been convicted under articles of the Criminal Codes covering offences that are neither religious nor political, such as "parasitism," or "prohibited trading" (see IV).

ARTICLES OF THE CRIMINAL CODE OF THE RSFSR (RUSSIAN REPUBLIC)

I. RELIGIOUS OFFENCES

Article 142. Violation of the laws on the separation of church and state and of school and church.

/1 "is punishable by correctional tasks for a period not exceeding one year or by a fine not exceeding fifty roubles.

/2 "The same actions committed by a person previously sentenced for violating the laws on the separation of church and state and of school and church, and likewise organising activity directed at the commission of such actions are punishable by deprivation of freedom for a period not exceeding three years."

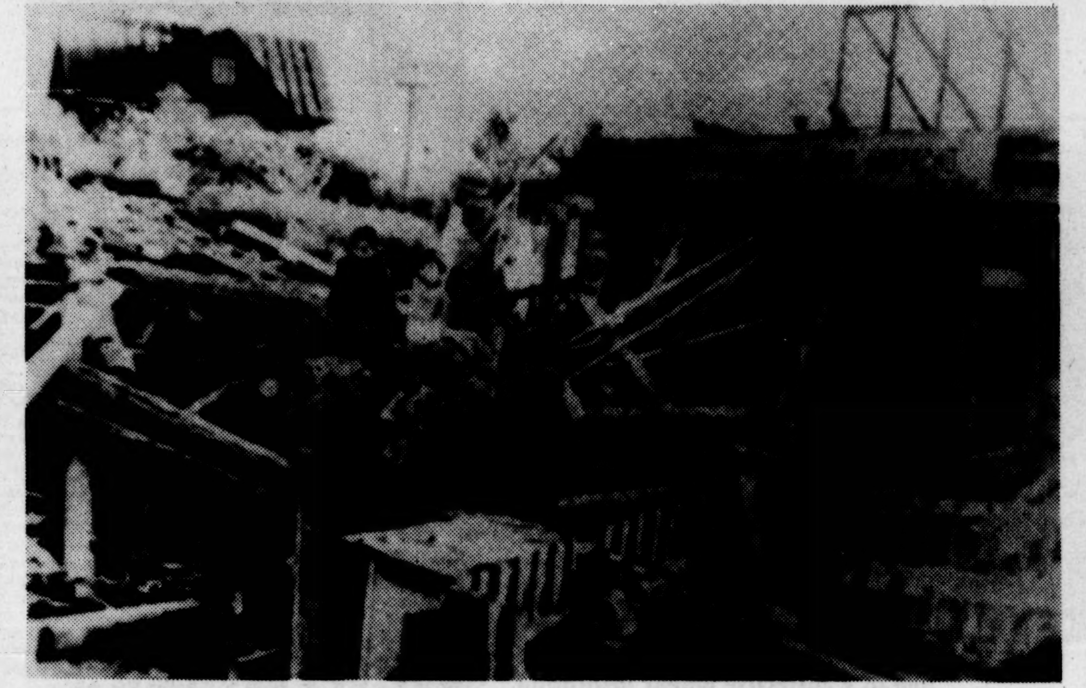
Article 227. Infringement of the person and rights of citizens under the guise of performing religious rituals.

/1 "Organising or leading a group whose activity, carried on under the guise of preaching religious doctrines and performing religious rituals, is connected with causing harm to citizens' health or with other infringements of the person or rights of citizens, or with inciting citizens to refuse to do social activity or to fulfil obligations, and likewise with enticing minors into such a group, is punishable by deprivation of freedom for a period not exceeding five years or exile for the same period with or without confiscation of property.

/2 "Active participation in the activity of a group such as described in the first part of this article, and likewise, systematic propaganda directed at the commission of the acts described therein, is punishable by deprivation of freedom for a period not exceeding three years or exile for the same period or correctional tasks for a period not exceeding one year."

(By a twist of penal law, article 209 in Ukraine can carry a sentence of five years imprisonment *followed* by five years exile.)

Under Article 142 it is an offence to organise any activity of a religious group and to teach religion to children (except one's own). Article 227, introduced in 1959, was initially directed mainly at Pentecostals. It was soon, however, also applied to Christians of almost all denominations, and even to Buddhists and most recently to Hare Krishna followers and adherents of Yoga. The essential features are "causing harm to health" (frequently stated to result from speaking in tongues by Pentecostals) and "inciting citizens to refuse to do social activity," for example, urging members not to take part in secular cultural activities.



A Baptist family in the Soviet Union in the midst of the ruins of its destroyed house. A common prayer meeting had taken place here without official permission, which is practically impossible to get. Courageous people mounted a sign over the ruins of the house: "Hated without cause."

II. MILITARY OFFENCES

Article 80. Evasion of regular call to active military service.

Article 198-1. Evasion of training courses or musters and of military registration by person subject to military service.

Article 249. Evasion of military service by maiming or any other method.

(a) "The evasion by a person in military service of performance of military duties by causing himself any kind of injury (maiming) or by malingering, forgery of documents or any other deception, or a refusal to perform military duties is punishable by deprivation of freedom for a period of three to seven years.

(b) "The same acts committed in wartime or in a combat situation are punishable by death or by deprivation of freedom for a period of five to ten years."

Cell for four inmates in Lefortovo (Moscow), a special KGB prison.

Refusal to be drafted into the armed forces is likely to bring an automatic conviction under article 80, and the military authorities might subsequently repeat the call-up. Under Article 249 a refusal to swear the military oath (which is unacceptable to many Christians) can be construed as refusal to perform military duties, on the grounds that many duties cannot be performed by soldiers who have not sworn the oath. However, prosecution is not automatic and Christian soldiers are often transferred to units engaged in construction projects.

People who have become conscientious objectors subsequent to completing military service may refuse to do reservist training and are punished under Article 198-1. Christians and Jews wishing to emigrate may fear that reservist training may block their emigration on the grounds that they have had recent access to military secrets.

III. POLITICAL OFFENCES

Article 64. Treason.

Offences under this article include escaping from the country and "conspiracy for the purpose of seizing power." *Maximum sentence fifteen years plus five years exile, or death.*

Article 70. Anti-Soviet agitation and propaganda.

Article 190-1. Circulation of deliberately false concoctions, slandering the Soviet state and social order.

Article 70 is applied in cases where fundamental criticism has been *made, for example of the USSR's record on human rights, or of the treatment of national minorities. Article 190-1 is frequently applied to believers who have written or spoken of religious persecution or been involved in the circulation of documents detailing violations of religious freedom and other human rights.*

IV. OTHER ARTICLES

Article 162. Engaging in a prohibited trade.
The unofficial printing of religious literature is considered a "prohibited trade."

Article 188-3. Malicious disobedience to the requirements of the administration of a corrective labour institution.
This article, introduced in the RSFSR on 1 October 1983, enables the Soviet authorities to impose an additional period of imprisonment solely on the evidence of camp officials.

Article 190-3. Organisation of, or active participation in, group actions which disrupt public order.
This article can be applied when believers assemble in public, for example when locked out of a church or conducting an open-air baptism.

Article 191. Resisting representative of authority or representative of public fulfilling duties of protection of public order.

Article 191-1. Resisting policeman or people's guard (Druzhinnik).
These charges are used to justify the breaking up of religious meetings and unprovoked assault on believers.

Article 206. Hooliganism.
"Hooliganism, that is, intentional actions violating public order in a coarse manner and expressing a clear disrespect toward society . . . is punishable by deprivation of freedom for a term of six months to one year."

"Malicious hooliganism, that is, the same actions distinguished in their content by exceptional cynicism or special impudence . . . is punishable by deprivation of freedom for a term of one to five years."

Peaceful demonstrations and other non-violent actions may be considered "malicious hooliganism."

Article 209. Malicious evasion of fulfillment of decision concerning arrangement of work and discontinuance of parasitic existence.
". . . is punishable by deprivation of freedom for a period not exceeding two years or correctional tasks for the same period."

Some religious believers cannot work because of discrimination; others are supported unofficially by fellow believers. In either case prosecution is possible under this article if work is not found within one month of an order issued to that effect. ☐

Imprisoned dissident in Belye Stolby, a psychiatric prison in Moscow.

Soviet Psychiatric Prisons

A testimony from a prisoner of conscience

Nikolai Baranov was first arrested in 1963 for forming an underground movement after listening to the Russian-language Voice of America and the BBC. He declared himself anti-communist and democratic, and tried to distribute a pamphlet, 'Our Pathway'. After five years in a prison camp with no papers and no help from the Soviet authorities, he eventually went to the Swedish embassy with an application to emigrate.

He was arrested and spent the next 17½ years in special psychiatric prisons. Nikolai was adopted by Amnesty International as a prisoner of conscience: over 11,000 letters were sent to the authorities by a group of people in Keele. Neil Kinnock raised his case when he visited the Soviet Union in 1984. An exit visa was issued and Nikolai was duly released. Below are extracts from a statement Nikolai issued at an Amnesty press conference held in October 1986. —Belona Beaze

ANTI-SOVIET

On 24th December 1968 I prepared two anti-Soviet statements. One I dropped into the mailbox of the Swedish Embassy so that it would get known in the West. A copy I delivered to the Central Committee of the Communist Party of the Soviet Union. I handed it to the Secretary on duty. She read it and summoned the Captain of the KGB. He read it and said take your application and clear out, otherwise you will be arrested.

I said that I did it all, not to leave but so that I should be arrested. He took me into an empty room. The KGB arrived and took me in their car to Kosnitchnimost 25, where they summoned a psychiatrist from Moscow who talked to me and told the KGB he couldn't find any mental disorder. The KGB said they couldn't arrest me just now because there was no prosecutor available. It was very late but they couldn't let me go. So they asked the psychiatrist to help to take me temporarily to a psychiatric hospital. And that is what happened.

I was taken to Section 3 of Gannushkin Hospital. I spent 18 days there before being taken to Lefortovo prison. I was summoned for interview and examined by senior investigators. I refused to speak, I said I would only speak in court and that was my right.

HOSPITAL

Soon after I was sent to Sersky Hospital Fourth Department headed by the late Professor Lunns. Nobody touched on my motives except Professor Lunns. I told him my whole story openly. He worked for the KGB and I was given to understand that I was considered to be mentally ill.

On 4th July 1969 I arrived in Leningrad and was given Aminazine injections which caused my liver to swell. Then I was treated with Triftazine and on 22nd August 1972 I was sent to Tashkent psychiatric hospital. There I was given Triftazine and Aminazine. I was also given Sulfazin, 10 injections from 4 to ten cubic centimetres over 10 days.

I did not agree to being a mental patient and objected and resisted in every way. For more than 9 years I considered myself to be completely sane and on 19th Feb 1974 we decided to escape. Our escape ended in failure. I was then sent to the hospital in Kazin and spent 4½ years there. I was treated with Triftazine, Aminazine, Mogactil and Haliperidol. Twice I was treated with 10 injections of Sulfazin so that I should lose weight and become mentally more active.

In Nov. 1979 I arrived in a special hospital some 30 kms from Alma Ata, where I spent 3½ years. There I was treated in a completely different way, much harsher. On 15th August 1980 I was beaten unconscious by a lieutenant and a duty doctor. They cracked open my head with a key, knocked my nose to one side and dislocated my jaw. They even beat me on my solar plexus until I fell unconscious.

LENINGRAD

On 16th May 1983 I arrived at Psychiatric Hospital No. 3 in Leningrad. It was a civil hospital and they gave me Aminazine and later Nusapan, a new medicine. I chaired a so-called Council of Patients and had a chance to walk around in the hospital grounds. I even took part in work therapy.

Then one of the doctors heard that I had been granted permanent residence in Great Britain. I was asked whether I wanted to leave the Soviet Union. I said yes, I had no chance of living normally in Russia and no place of residence. After that their attitude changed completely. I was transferred to a section reserved for highly disturbed people and treated with Triftazine but thanks to complaints and appeals from my sister I was returned to the civil side of the hospital.

However the doctors slandered me and I was again subjected to Aminazine and other terrible drugs. I remained there till the 3rd August this year when I left for England.

In conclusion I would like to say that thanks to the humane mission of Amnesty International and proletarian solidarity from the British Labour Party I obtained the full right to my freedom. ☐

REAL PEOPLE

Imprisoned in Soviet prisons or camps for their religious beliefs.

ABASHIN, Veniamin Ivanovich:	Baptist
ABRAMKIN, Valeri Fyodorovich:	Orthodox
ABRUTIENE, Edita:	Roman Catholic
AIRIKYAN, Paruir Arshavirovich:	Armenian Apostolic
AKHTYOROV, Filipp Pavlovich:	Pentecostal
AKHTYOROV, Pavel Alexeyevich:	Pentecostal
ALBREKHT, Vladimir Yanovich:	Roman Catholic
ALEMASOV, Andrei Ivanovich:	Baptist
ANDRIYETS, Alexander Ivanovich:	Baptist
ANDRIYETS, Anatoli Ivanovich:	Baptist
ANDRIYETS, Pyotr Ivanovich:	Baptist
ANTONOV, Ivan Yakovlevich:	Baptist
ASTASHOVA, Galina Prokopevna:	Adventist
ATSUTA, Ilya Leonidovich:	Adventist
AZAROV, Mikhail Ivanovich:	Baptist
BABENKO, Dzhordzh Alexandrovich:	Baptist
BAKLAZHANSKY, Vladimir Georgevich:	Baptist
BALATSKY, Anatoli Nikitovich:	Baptist
BALUSH, Grigori Ivanovich:	Orthodox
BARANYUK, Ivan Andreyevich:	Baptist
BARATS, Galina Ivanovna:	Pentecostal
BARATS, Vasili Martynovich:	Pentecostal
BARINOV, Valeri Alexandrovich:	Baptist
BATURIN, Nikolai Georgievich:	Baptist
BEDAREV, Gennadi Stepanovich:	Adventist
BEI, Valentin Vasilevich:	Adventist
BELYAK, Sofya Iosifovna:	Roman Catholic
BEZZUBENKO, Viktor Semyonovich:	Baptist
BIELIAUSKIENE, Jadvyga:	Roman Catholic
BOBARYKIN, Nikolai Grigorevich:	Pentecostal
BOIKO, Nikolai Yerofeyevich:	Baptist
BONDAR, Pyotr Sergeyevich:	Baptist
BORODIN, Leonid Ivanovich:	Orthodox
BOZHKO, Vitali Nikolayevich:	Baptist
BUBLIK, Alexander Ivanovich:	Baptist
BURDYUG, Viktor:	Orthodox
BYCHKOV, Leonid Pavlovich:	Baptist
BYCHKOV, Stepan Pavlovich:	Baptist
CEKANAVICIUS, Arvydas:	Roman Catholic
CHABAN, Nikolai Semyonovich:	Baptist
CHECHUN, Daniil Afanasevich:	Baptist
CHEREMISOV, Ivan Ivanovich:	Adventist
CHERNOLIKOVA, Ya.:	Adventist
CHERTKOVA, Anna Vasilievna:	Baptist
CHERVYAKOVA, Natalya Pavlovna:	Baptist
CHIKHLADZE, Teimuraz Vladimirovich:	Georgian Orthodox
CHISLIN, Ivan Nikolayevich:	Baptist
CHISTYAKOV, Veniamin Grigorievich:	Baptist
DAMASKIN, V.:	Baptist
DAMYAN, Iosif Georgievich:	Baptist
DANILCHENKO, Nikolai Grigorevich:	Baptist
DANILYUK, Ivan Grigorievich:	Baptist
DIK, Gerhard Gerhardovich:	Baptist
DIK, Peter:	Baptist
DOLISHNY, Vasyl:	Ukrainian Catholic
DORONINA, Lidiya Andreyevna:	Baptist
ENNS, Dmitri Petrovich:	Baptist
EPSHTEIN, Samuil Davydovich:	Tolstoyan
EVERT, Eduard Yakovlevich:	Baptist
FEDORCHUK, Ivan Maximovich:	Pentecostal
FEDORENKO, Fr. Vladimir Tikhonovich:	Orthodox
FEDOTOV, Ivan Petrovich:	Pentecostal
FOT, Yakov Ivanovich:	Baptist
FRENKEL, Vladimir Zinovievich:	Orthodox
FRIEMANN, Evald Reingoldovich:	Baptist
GAJAUSKAS, Balys:	Roman Catholic
GERMANYUK, Stepan Grigorievich:	Baptist
GERMANYUK, Ulyana Sergeyevna:	Baptist
GERSHKANU, Nikolai:	Orthodox
GOLIKOV, Pyotr Mikhailovich:	Pentecostal
GOLIKOVA, Valentina Andreyevna:	Pentecostal
GOLOSHCHAPOV, Pavel Doroteyevich:	Baptist
GORETOI, Nikolai Petrovich:	Pentecostal
GORYANIN, Mikhail Alexandrovich:	Baptist
GRITSENKO, Vasili Ivanovich:	Baptist
GUDAVA, Tengiz Zubarovich:	Roman Catholic
GULA, Yevgeni:	Pentecostal
GUNTER, Bernhard Abramovich:	Baptist
HERZEN, Susanna:	Baptist
HRYHOROVICH, Katrusya Stepanovna:	Ukrainian Catholic
HRYHOROVICH, Fr. Stefani:	Ukrainian Catholic
IVANOV, Arkadi Pavlovich:	Baptist
IVASHCHENKO, Anatoli Yakovlevich:	Baptist
IVASHCHENKO, Yakov Yefremovich:	Baptist
JASKUNAS, Henrikas:	Roman Catholic
JANZEN:	see YANTSEN
KABINOV, Anatoli Stepanovich:	Pentecostal
KALYASHIN, Alexei Alexandrovich:	Baptist
KALYASHINA, Valentina Alexandrovna:	Baptist
KAMPOV, Pavlo Fyodorovich:	Ukrainian Catholic
KARA, Ivan, Ivanovich:	Baptist
KARALIUNAS, Voldemaras:	Roman Catholic
KAVATSIV, Fr. Vasili Mikhailovich:	Ukrainian Catholic
KERSTAN, Emil Fridrikhovich:	Baptist
KHAILO, Vladimir Pavlovich:	Baptist
KHODOROVICH, Sergei Dmitrievich:	Orthodox
KHOKHA, Anatoli Ivanovich:	Pentecostal
KHOREV, Mikhail Ivanovich:	Baptist
KIM, Vyacheslav Ilyich:	Baptist
KINAS, Ivan Ervinovich:	Baptist
KIRILYUK, Ivan Vladimirovich:	Baptist
KIROV, Kharlampy Vasilevich:	Baptist
KLASSEN, Rudolf Davidovich:	Baptist
KLESHCH, Mikhailo Nikolayevich:	Ukrainian Catholic
KLIMASAUSKAS, Henrikas:	Roman Catholic
KLIMOSHENKO, Nikolai Stepanovich:	Baptist
KLYMUK, Pavel:	Baptist
KOBRYN, Vasyl:	Ukrainian Catholic
KOKURINA, Valentina Ivanovna:	Baptist
KOLBANTSEV Nikolai Ivanovich:	Baptist
KOLCHUGIN, Hieromonk Savva:	Orthodox
KONEV, Ivan Alexandrovich:	Adventist
KOPOLOVETS, Ivan:	Orthodox
KOROB, Vladimir Sergeyevich:	Baptist
KOSTAVA, Merab:	Georgian Orthodox
KOSTENYUK, Vladimir Iosifovich:	Baptist
KOSTYUCHENKO, Grigori Vasilevich:	Baptist
KOSTYUK, Stepan Grigorievich:	Pentecostal
KOTOV, Aleksei Nikitovich:	True Orthodox
KOVALENKO, Ivan Fyodorovich:	Pentecostal
KRAKHMALNIKOVA, Zoya Alexandrovna:	Orthodox
KRAVCHUK, Ivan Ivanovich:	Baptist
KRAVCHUK, Yakov Ivanovich:	Baptist
KRIVOBERETS, Timofei Fyodorovich:	Adventist
KRUGOVYKH, Alexander Vasilievich:	Baptist
KULEMIN, Vasili Nikolayevich:	Baptist
KUMA, Teovils Ernestovich:	Pentecostal
KURKIN, Alexei Yakovlevich:	Baptist
KUTRAN, Lyudmila Stepanovna:	Pentecostal
KUZMENKO, Pyotr Varfolomeyevich:	Baptist
KVETSKO, Dmitri Nikolayevich:	Orthodox
LAPIENIS, Vladas:	Roman Catholic
LAZAREVA, Natalya Mikhailovna:	Orthodox
LEBSACK, Vladimir Alexandrovich:	Baptist
LEVEN, Nikolai Viktorovich:	Baptist
LEVIN, Genrikh Genrikhovich:	Baptist
LISOVSKY, Cheslav:	Baptist
LITVINENKO, Leonid Fyodorovich:	Pentecostal
LOBANOV, Oleg Mikhailovich:	Pentecostal
LOBODA, Vladimir:	Pentecostal
LUDVIKS, Maris:	Lutheran
LUKOSEVICIUS, Petras:	Roman Catholic
LUKYANENKO, Lev Grigorievich:	Orthodox
MAIDANYUK, Georgi Fyodorovich:	Pentecostal
MAKHOVITSKY, Fyodor Vladimirovich:	Baptist
MALITNYUK, Alexei:	Baptist
MAMUS, Mykola Stepanovich:	Ukrainian Catholic
MARKEVICH, Veniamin Alexandrovich:	Baptist
MARKUS, Sergei:	Orthodox
MATSYUK, Nikolai Afanasevich:	Pentecostal
MATULIONIS, Fr. Jonas Kastytis:	Roman Catholic
MATYUKHA, Alexander Ivanovich:	Baptist
MEILAKH, Mikhail Borisovich:	Orthodox
MELNGAILIS, Gederts:	Lutheran
MELNIK, Afanasi Agafonovich:	Pentecostal
MIKHAILENKO, Anna Vasilevna:	Ukrainian Catholic
MIKHAILOV, Fr. Iosif:	Orthodox
MIKHIN, Vasili Akimovich:	Baptist
MILYUTIN, Oleg Vasilevich:	Orthodox
MINYAKOV, Dmitri Vasilevich:	Baptist
MIRONENKO, Sergei:	Baptist
MISIN, Nikolai Ivanovich:	Baptist
MOISEYEV, Roman Vasilievich:	Baptist
MONBLANOV, Viktor Vladimirovich:	Unknown
MOTSNIK, Harri:	Lutheran
MURASHKIN, Vladimir Grigorievich:	Pentecostal
MURKIN, Alexei Ivanovich:	Adventist
MURKIN, Mikhail Ivanovich:	Adventist
NAPRIENKO, Valentin Yerofeyevich:	Baptist
NAPRIENKO, Veniamin Yerofeyevich:	Baptist
NEGRILO, Leonid Nikolayevich:	Pentecostal
NEVEROVA, Polina Trofimovna:	Adventist
NIKITKOV, Alexander Valentinovich:	Baptist
NOVOZHILOV, Pavel Fyodorovich:	Pentecostal
OGORODNIKOV, Aleksandr Iosifovich:	Orthodox
OGURTSOV, Igor Vyacheslavovich:	Orthodox
OKHOTIN, Vladimir Andreyevich:	Baptist
OMELYANCHUK, Nikolai Ivanovich:	Baptist
PAILODZE, Valentina Serapionovna:	Georgian Orthodox
PALANICHUK, Ivan Ivanovich:	Baptist
PANACHOV, Igor:	Orthodox
PAPAYAN, Raphael Ashotovich:	Armenian Apostolic
PAUN, V.:	Baptist
PAVLENKO, Alexander Ivanovich:	Baptist
PAVLOVETS, Viktor:	Pentecostal
PAVLYUK, Pavel Stepanovich:	Pentecostal
PECELIUNAS, Povilas:	Roman Catholic
PETERS, Heinrich Danilovich:	Baptist
PETERS, Ivan (Johann) Isaakovich:	Baptist
PETERS, Peter Abramovich:	Baptist
PETERS, Pyotr Danilovich:	Baptist
PETKUS, Viktoras Antanovich:	Roman Catholic
PIDGORODETSKY, Vasyl Vladimirovich:	Ukrainian Catholic
PIHELGAS, Jaanus:	Lutheran
PIKALOV, Viktor Anatolievich:	Baptist
PILIPCHUK, Bronislav Andreyevich:	Baptist
PILIPCHUK, Vladimir Nikolayevich:	Baptist
PIRICH, Vasili Andreyevich:	Pentecostal
PIVOVAROV, Fr. Alexander:	Orthodox
POLISHCHUK, Nikolai Petrovich:	Baptist
PONOMARYOV, Anatoli Dmitrievich:	Orthodox
POPOV, Kirill Nikolayevich:	Roman Catholic
POPOV, Nikolai Filippovich:	Baptist
POPOVICH, Oksana Zenonovna:	True Orthodox
PORESH, Vladimir Yurevich:	Orthodox
POZDNYAKOV, Pavel:	Baptist
PRETSKAU, Lidiya:	Baptist
PRETSKAU, Walter:	Baptist
PRIKHODKO, Ivan Fyodorovich:	Baptist
PROTSYSHINA, Lyudmila Petrovna:	Baptist
PUSHKOV, Yevgeni Nikiforovich:	Baptist
RATUSHINSKAYA, Irina Georgievna:	Orthodox
RATUSHNY, Anatoli Vasilievich:	Adventist
RAZORVIN, Pavel Mikhailovich:	Baptist
RAZVEYEV, Boris:	Orthodox
REDIN, Anatoli Sergeyevich:	Baptist
REPIN, Valeri Timofeyevich:	Orthodox
RICHERT, Wilhelm Yakovlevich:	Baptist
RIGA, Alexander Sergeyevich:	Roman Catholic
RODIONOVA, Valentina:	Pentecostal
ROGALSKY, Viktor Pavlovich:	Baptist
ROMANCHUK, Yakov Timofeyevich:	Baptist
ROMANYUK, Vladimir Nikolayevich:	Baptist
ROSHER, Bernard Vilgelmovich:	Pentecostal
ROZKALNS, Janis Hugovich:	Baptist
RUBLENKO, Anatoli Timofeyevich:	Baptist
RUNOV, Anatoli Fyodorovich:	Baptist
RUSAVUK, Pyotr Andreyevich:	Baptist
SANNIKOVA, Yelena Nikitichna	Orthodox
SASNAUSKAS, Julius	Roman Catholic
SAVCHENKO, Nikolai Romanovich	Baptist
SAVELEVA, Valentina Ivanovna	Baptist
SAVENKOV, Mikhail Alexeyevich	Baptist
SAZHNEV, Pavel Veniaminovich	Baptist
SEMCHENKO, Alexander Trofimovich	Baptist
SENDEROV, Valeri Anatolievich	Orthodox
SENIN, Anatoli	Orthodox
SERDYUK, V.	Baptist
SHABURA, Ivan Abramovich	Pentecostal
SHABUROV, Nikolai Artemovich	Orthodox
SHCHERBETS, V.:	Baptist
SHCHUR, Anatoli	Orthodox
SHELKOV, Vladimir Vladimirovich	Adventist
SHELUDKO, Gennadi Ivanovich:	Orthodox
SHELUDKOV, Anatoli Leonidovich	Pentecostal
SHEPEL, Nikolai Yemelyanovich:	Baptist
SHEVCHENKO, Vasili	Baptist
SHEVYAKOV, Ivan Ivanovich	Baptist
SHIDYCH, Ivan Grigorievich	Baptist
SHILO	Pentecostal
SHMIDT, Andreas	Baptist
SHMIDT, Boris Yakovlevich	Baptist
SHOSHIN, Mikhail Nikolayevich	Baptist
SHVED, Galina Kuzminichna	Pentecostal
SHVED, Grigori Stepanovich	Pentecostal
SHVETSOVA, Anna Vladimirovna	Baptist
SHVETSOVA, Dina Vladimirovna	Baptist
SIDENKO, Fyodor Akimovich	Pentecostal
SIGARYOV, Mikhail Lavrentievich	Baptist
SIMONIS, Ignas	Roman Catholic
SKALICH, Semyon	Ukrainian Catholic
SKORNYAKOV, Yakov Grigorievich	Baptist
SKUBLIN, Alexander	Unknown
SKUDRA, Zanis	Lutheran
SKUODIS, Vytautas	Roman Catholic
SKVORTSOVA, Lyubov Nikolayevna	Baptist
SLYUSAR, Vasili Leontyevich	Baptist
SMETANA, Ivan	Ukrainian Catholic
SMOZHENYK, Mykhailo	Ukrainian Catholic
SOLOVEV, Fr. Vladimir	Orthodox
SOLTYS, Fr. Ihnat	Ukrainian Catholic
STATKEVICIUS, Algirdas	Roman Catholic
STEFFEN, Ivan (Johann) Petrovich	Baptist
SVARINSKAS, Fr. Alfonsas	Roman Catholic
SVETOV, Felix	Orthodox
SVIDNITSKY, Fr. Josif	Roman Catholic
TAMKEVICIUS, Fr. Sigitas	Roman Catholic
TATARENKO, Arnold Mikhailovich	Pentecostal
TEMIRBAYEV, Fr. Nikolai Saryyevich:	Orthodox
TERELYA, Iosyp Mykhailovich	Ukrainian Catholic
TERLECKAS, Antanas	Roman Catholic
TIMCHUK, Ivan Vasilevich	Baptist
TIMCHUK, Vladimir Ivanovich	Baptist
TIMOKHIN, Sergei Yurevich	Baptist
TIMOKHIN, Valeri Safinovich	Orthodox
TITOV, Vladimir Grigorievich:	Baptist
TKACH, Vasili Ivanovich	Baptist
TKACHENKO, Ivan Ivanovich	Baptist
TKACHENKO, Nikolai Sergeyevich:	Baptist
TKACHENKO, Semyon Fyodorovich:	Pentecostal
TOLSTOPYATOV, Ivan Alexeyevich:	Baptist
TOLUYANU, Ion:	Innokentievtsy
TRYKUR, Mariya:	Ukrainian Catholic
TRYKUR, Mykhailo:	Ukrainian Catholic
TSARUKYAN, Garnik Agaronovich:	Armenian Apostolic
TSITSYN, Boris Andreyevich:	Baptist
TULYUPA, Vladimir Fyodorovich:	Baptist
TYAGUN, Ivan Mefodievich:	Baptist
ULIHANYNETS, Ilya:	Ukrainian Catholic
VALL:	see WALL
VALTER:	see WALTER
VARAVIN, Vitali Fyodorovich:	Baptist
VASILCHENKO, Vladimir Fyodorovich:	Adventist
VELIKANOVA, Tatyana Mikhailovna:	Orthodox
VERBYAZH, Albert:	Adventist
VEVERIS, Janis:	Baptist
VEZIKOV, Pavel Viktorovich:	Baptist
VINS, Nikolai Genrikhovich:	Pentecostal
VLASENKO, Vladimir Mefodievich:	Baptist
VOLF:	see WOLF
VORONA, Alexander Petrovich:	Unknown
VOTH:	see FOT
VYRSTA, Fedir:	Ukrainian Catholic
WALL, Ivan Abramovich:	Baptist
WALTER, Peter Samuilovich:	Pentecostal
WALTER, Viktor Samuilovich:	Pentecostal
WOLF, Andrei Korneyevich:	Baptist
WOLF, Yegor Korneyevich:	Baptist
YAKIMCHUK, Ivan Grigorievich:	Baptist
YAKUNIN, Fr. Gleb Pavlovich:	Orthodox
YANKOVICH, Alexander Ivanovich:	Baptist
YANTSEN, Yakov Yakovlevich:	Baptist
YASINSKY, Y.:	Baptist
YELIZAROV, Gennady Dmitrievich:	Baptist
YERMALYUK, Alexander Vladimirovich:	Baptist
YESYP, Fr. Roman Stepanovich:	Ukrainian Catholic
YEVDOKIMOV, Rostislav Borisovich:	Orthodox
YUDINTSEV, Andrei Vasilevich:	Baptist
YURKEVICH, Mikhail Mikhailovich:	Baptist
ZARIVNY, Adam Mikhailovich:	Pentecostal
ZAYATS, Vyacheslav Vasilievich:	Baptist
ZEMAITIS, Romas:	Roman Catholic
ZHUKOVSKAYA, Evelina Stepanovna:	Baptist
ZHURAVEL, Andrei Vladimirovich:	Pentecostal
ZHURAVEL, Mariya Mikhailovna:	Pentecostal
ZINCHENKO, Pavel Petrovich:	Baptist
ZINCHENKO, Vladimir Petrovich:	Baptist

Irina Ratushinskaya, Orthodox Christian poet, currently on a hunger strike in Yavas labor camp.

Two Catholic priests before their incarceration, A. Svarinskas and S. Tamkevicius.

Vladimir Alekseevich Kustrya, a Hare Krishna imprisoned in a "corrective labor" camp in Ust-Kulonskaya Territory of Komi A.S.S.R. ▶

WHAT YOU CAN DO TO HELP

It is easy to send a postcard or a greetings card to the Soviet Union, and it is one way of showing that you care. We know that such cards are a tremendous source of encouragement to those who receive them.

All the names and addresses on this list are of religious believers who have already attracted the attention of the authorities by words or actions resulting from their faith. A card with a simple greeting from the West will not therefore do any harm. In fact it will show that people in the West not only know about religious prisoners, but are concerned enough about their welfare to write to them. This should, if anything, bring about a slight improvement in conditions for the prisoners and their families.

The Content of Your Messages
Send short, simple greetings to let them know that you care and are supporting them in prayer. Do not send long letters unless you first receive a reply. You may write in English, or copy one of the greetings given below onto your card and add a few words in English if you wish. Please remember never to make any remark of a remotely political nature, and NEVER mention Keston College or any organization. This may prove to be harmful, as a prisoner could be accused of having connections with a "Western anti-Soviet organisation."

The Lord Preserve You!	Да храни Вас Господь!
With Friendly Greeting	С дружеским приветом.
Happy Christmas!	С Рождеством Христовым!
Happy New Year!	С Новым Годом!
Christ Is Risen!	Христос Воскресе!
Happy Birthday!	С днем рождения!

Addressing
The Soviet Post Office will accept letters addressed in Latin characters but please ensure that you print the address very carefully. Copy it exactly as it is given. Soviet addresses are written with the Republic first, then the area, town, street, and finally the name of the addressee. Write USSR at the very bottom to help our post offices. On the back of the envelope write your own name and address. This is normal practice in Europe and your letter will be conspicuous without it. If you are planning to travel to the Soviet Union you may be wise to ask a friend to write on your behalf.

Example:

343212 Donetskaya Obl.,
G. Slavyansk,
Ul. Krymskaya 17
Akhtyorova Raisa
Alexeyevna,
USSR.

431200 Mordovskaya Assr.,
Tengushevsky Raion,
Pos. Barashevo,
UCHR. ZhKh-385/3-5,
Akhtyorov Pavel Krushkova,
USSR.

Posting
All letters from the United States to the Soviet Union go by air mail. It is a good idea to register your letters and send them with an Advice of Delivery card. This costs extra. In our experience it is worth doing this as you will receive notification when your letter arrives. If for any reason your letter cannot be delivered it should be returned to you, and you have the right to ask the Post Office regarding any letters that go astray.

Further information
Any new information about these prisoners as well as details of new arrests can be found in the Keston News Service, a fortnightly publication which reports such information immediately as it becomes available and produces a comprehensive Prisoner List Update every two to three months. The information in this list is necessarily very brief, but we should never forget that every name represents a fellow human being. Detailed information on many of the prisoners contained in the list is available from Keston College for the cost of postage and photocopying. Write to:

Keston College USA
P. O. Box 1310
Framingham, MA 10710 ■

The Samizdat Bulletin

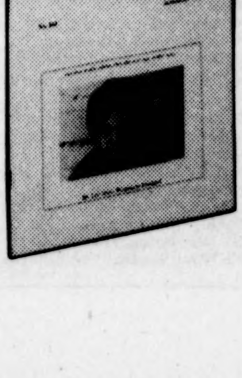
Samizdat is a Russian word meaning self-publishing. ***The Samizdat Bulletin****, a monthly, is a compilation of excerpts from the "free, underground press in the USSR" translated and reprinted with little or no commentary. Most articles pertain to religious and political prisoners. The following is a portion of "Excerpts From a Letter to an Unknown Addressee on Some Aspects of Post-Chernobyl Life in the Ukraine" which appeared in the November 1986 issue.* —*Douglas Cruikshank*

●

Our main problem is food. I do not buy any vegetables, although there are many in the stores. We have not been drinking milk since the beginning of May. Occasionally, I buy cottage cheese. We eat vermicelli, old potatoes, but even these are in short supply. And what may we expect next? . . . I don't know how we'll go on living. Between the 2nd and the 16th of June, children of grades 1 to 7 (7-14 year olds) were evacuated from Kiev for a duration of 45 days; they were scheduled to return just about now, but there was an order to keep them where they are presently living (somewhere in the Ukraine) for another 45 days.

What frightens us most of all is lack of information, and no one brings up the subject any longer. Yesterday I went to a vegetable store and saw fresh raspberries on the counter. They looked so good and I asked the saleslady, who is a friend of mine: "Where do these berries come from?" and she said: "Don't buy them under any circumstances because these raspberries were gathered in the vicinity near Kiev." But people buy them anyway.

Yuri Orlov in exile (Yakutia, 1984) after seven years in a labor camp.



The Samizdat Bulletin
Olga Stacevich, Editor
$35/year
(12 issues) from:
Samizdat Bulletin
P. O. Box 6128
San Mateo, CA 94403

Inevitable Revolutions

When Washington explains our involvement in Central America, its version of truth differs from most other sources, besides having a curiously short historical viewpoint. Names like Somoza and the United Fruit Company, early milestones along a bloody path, are never mentioned, so for many North Americans the roots of today's news stories remain unknown.

This excellent history of Central America also illuminates turning points in U.S. foreign policy, such as in 1933 when our government, tired of two decades of sending the marines into Nicaragua, decided to hire out the job. Thus were born Nicaragua's National Guard, headed by the man the marines appointed — Anastasio Somoza. His success in maintaining a "stable investment climate" meant that our marines could stay home, and also created our first local military rule run by remote control.

Another big change came in Guatemala in 1954, when the Monroe Doctrine, always interpreted as a holy writ that kept aggressors out of "our" hemisphere, had to be redefined. Aggressors could now be internal, not just external, and so a government that promoted land reforms at the expense of a U.S. corporation became a legitimate target to be blitzed. That operation also introduced a new tool to the area, a group called the CIA.

The book covers everything from Teddy Roosevelt's big stick to Jeanne Kirkpatrick's U.N. dialogs, and is guaranteed to expand your knowledge while simultaneously adding depth to your understanding of the evening news.

—Dick Fugett *[Suggested by Shel Kaphan]*

●

In 1950, Assistant Secretary of State for Inter-American Affairs Edward Miler admitted that Latin Americans unfairly suffered because, during the war, the United States "administered unilaterally" price controls that kept raw material prices down, and then after the war removed the controls and allowed the price of U.S. goods to shoot upward. In other words, Washington fixed the market in its favor not once, but twice: through government controls during the war to keep Latin American raw material prices down, then by resorting to "free market" practices after the war to allow U.S. prices to rise. As they watched their dollars become less valuable, Latin Americans had reasons for believing that such "free market" rhetoric was nothing more than hypocrisy.

●

Costa Rica was living beyond its means, and peasants and union members were beginning to pay the price. The country's low illiteracy rate, for example, was attained by devoting half the national budget to education. That budget rose with the birthrate, and as the economy slowed in the late sixties the country ran up the highest national debt in Central America. A deepening financial crisis in 1968, continuing into 1969, prevented government workers from receiving paychecks and prisoners from being regularly fed. Washington officials expressed growing displeasure. They had given Costa Rica special favors, including the largest of all Central American foreign loan authorizations in 1961, but after 1965 they saw their former Alliance showcase displaying shoddy goods. U.S. policy-makers cut back loans and demanded fiscal restraint. Thus the hemisphere watched the spectacle of North Americans pouring millions of dollars into Nicaragua because Somoza imposed, by brute force, a conservative fiscal policy on his people, while the Costa Rican government was publicly disciplined by Washington for educating and providing large-scale welfare programs for its people. The Alliance had not been designed to produce such irony.

●

Kirkpatrick based her argument on a sharp distinction between "authoritarian" and "totalitarian" governments. Authoritarians sought to preserve "traditional" societies, she argued, and maintained open capitalist economies. Totalitarians, however, sought to control every part of society, including the economy. Good authoritarians included Somoza and the Shah of Iran. Bad totalitarians were exemplified by Stalin and Hitler. Focusing on South America, Kirkpatrick attacked Carter for opposing authoritarian governments merely because they violated human rights. Somoza, she believed, had established little more than "an efficient, urban political regime."

Inevitable Revolutions

Inevitable Revolutions
(The United States
in Central America)
Walter LaFeber
1983; 378 pp.
$7.95
postpaid from:
W. W. Norton
500 Fifth Avenue
New York, NY 10110
or Whole Earth Access

Soldier of Fortune

Repulsive, ghoulish, brutal, sickening. That's war. And that's often the response to this notorious magazine that serves as a clubhouse for self-avowed mercenaries and gung-ho warriors. The talk is of guns and guns and bigger weapons, strategies, and heroics. Us against them. But war is really the enemy we should be fighting. Know thy enemy, portrayed unflinchingly in these pages.

—Kevin Kelly

●

Terrorism Training . . .
The opening of Iran's new "College of Information and Security" was approved 19 January by Iranian officials in a high-level Tehran meeting. . . . A class of 250 will begin training in April, various SOF sources report, who say instruction will prepare students for courses in Iranian intelligence — and terrorism. . . . Fifty and possibly more students will come from Kuwait, Saudi Arabia and Bahrain, sources told the magazine.

●

There's little doubt the Warsaw Pact powers will be our opponent should another major conflict occur, and our entire defense doctrine is based upon that premise. How can we best prepare our troops for that possibility? Simple. Create our own pseudo-Soviet adversary, train him with Soviet doctrine, arm and equip him with Soviet gear, and pit him against our own regular Army forces.

●

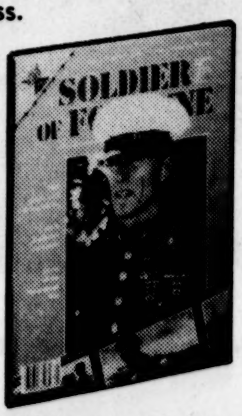
Training the Afghans was a unique experience. They have little sense of accomplishment. I also had to be very careful making any assumptions about what they understood.

In one class I tried to explain the lead rule for aircraft. You know, 100 meters for fast movers, 50 meters for helicopters. I talked for 15 minutes before I realized that they didn't know what a meter was. I had to use landmarks to explain it to them.

When we broke for chow, a man came up, pointed at the chalk drawing of a helicopter I used in the class and triumphantly exclaimed, "That's a helicopter, isn't it?"

After lunch, I retaught the class.

Soldier of Fortune
Robert K. Brown, Editor
$26/year
(12 issues) from:
Soldier of Fortune
Subscription Dept.
P. O. Box 348
Mount Morris, IL 61054



HEAR THAT LONG

BY
MICHAEL VENTURA

"ROCK'N'ROLL"

is a word from the depths. As a word, there is no modern word that can compare to it. It's as resonant as a Chaucer word. First, each of its parts is both a verb and a noun. "Rock," the noun *(Rock the noun!)*, is a most basic object. Hard. "Upon this rock I will build my church," said Jesus. An object-word that defies scale — it can fit into your hand, a rock, or it could be the whole planet. While as a verb, it leaps from the sturdiness of its noun-definition into movement, back and forth, oscillating, going from yin to yang and back again, rocking.

"Roll" is sweet, as a noun. Lush. Soft. Eschewing every traditional Anglo-Saxon word for the female organ, recently freed New Orleans slaves were calling the cunt a "jelly roll" over 100 years ago. So juicy did they find the expression that it came to mean cock as well as cunt, both genders singing about "my jelly roll." The first great jazz composer called himself Jelly Roll Morton. Then there's "roll of fat," "roll of bills" — that kind of roll. And as a verb *(Roll the verb!)*, it can move and it can move and it might never stop, end over end over infinity. Oceans roll.

Putting the two together, "rock'n'roll" was a term from the juke joints of the South, long in use by the forties, when a music started being heard that had no name, wasn't jazz and wasn't simply blues and wasn't Cajun, but had all those elements and could not be ignored. In those juke joints "rock'n'roll" hadn't meant the name of a music, it meant "to fuck." "Rock," by itself, had pretty much meant that, in those circles, since the twenties at least. "Rock'n'roll" was a juicy elaboration on the old usage. When, finally, in

With unexpected, compelling evidence, Michael Ventura asserts that rock music, TV evangelism theatrics, Baptist pentecostalism, jazz, and much else of our pop culture has its parenthood in voodoo. Originally appearing in Ventura's brilliant column in the progressive* L. A. Weekly, *we reprint from* Shadow Dancing, *an anthology of his

SNAKE MOAN

the mid-fifties, the songs started being played by white people and aired on the radio — "Rock Around the Clock," "Good Rockin' Tonight," "Reelin' And A-Rockin'" — the meaning hadn't changed. The word was so prevalent that the music began to be called "rock'n'roll" by disc jockeys who either didn't know what they were saying or were too sly to admit what they knew. The term stuck.

But it had a meaning with yet another root. For since roughly the turn of the century, and possibly much longer, in the singing churches of the blacks, when the songs were yelled and sung and the hands were clapped and the sweat was pouring and people were testifying, fainting, speaking in tongues, being at least transported and often saved, which meant to be overwhelmed by the Holy Ghost — that was called "rockin' the church." "They made the church rock." Upon *that* rock their church was built, more than on the stone of Peter. And the screams of rock that go right through you — high pitched screams that aren't joy and aren't agony but sound like both together, and sometimes like the human equivalent of microphone feedback, screams that yet are beautiful in their raw and naked and utterly committed flight out of the throat; the screams of Little Richard and Janis Joplin and Aretha Franklin and James Brown and Bruce Springsteen — those screams came straight out of those churches. You can hear them on virtually any recording of black church music — either field recordings from the little shacklike rural churches, or more sophisticated gospel recordings by people who sing the music as professionals. Such a scream. What can we call it but a holy scream? Unlike anything in Western music before it.

We will try to enter that scream, insofar as an

essays, published by Jeremy P. Tarcher, copyright 1985 by Michael Ventura. —*Kevin Kelly*

Michael Smith

(Left) Otis Redding. (Right) Visitation of the Spirit, at the Infant Jesus of Prague Church in New Orleans.

essay's prose can, and to enter the scream is, first, to contemplate Africa. To be precise, the west coast of Africa.

That American music is rooted in Africa is a cliche, and cliches are useless. But to trace that root is a revelation. It's a root that goes so deep that some of our most common terms — terms often associated with the music — are from African languages that haven't been spoken on this continent conversationally in close to two centuries. Robert Farris Thompson, the art and music historian, has found that "funky" is from the Ki-Kongo *lu-fuki,* meaning "positive sweat." Which is virtually what it means, in a metaphoric sense, in American language today. He notes that now the Bakongo people use the American "funky" and their own *lu-fuki* interchangeably "to praise persons for the integrity of their art." It's a word that's been around America for a long time. Song titles place it in New Orleans circa 1900, and it was apparently well established by then. *Which means this is not slang. This is a word in the American language.* Its roots and its longevity prove that, whether or not the word has found its way into our dictionaries and our middle-class usage.

Mojo, a word found in many a rock and blues tune, is Ki-Kongo for "soul." In North America for at least a century it has meant an object that's been invested with spirit power, soul power, and has the capacity to cure or heal or influence. "I got my mojo workin'," one song says. When my family moved not long ago, one of the movers, a black carrying a packing box of mine labeled "Voodoo," looked at me humorously and took his "mojo stone" out of his pocket to show me. When I asked to hold it, he wouldn't let me.

Again, this isn't jive-talk or a fad of speech. Its usage is too firmly rooted and too constant. This is our language.

Our "boogie" comes from the Ki-Kongon *mbugi,* meaning, according to Thompson, "devilishly good." *Juke,* as in our jukebox and juke joint (which often did not have juke-boxes) is the Mande-kan word for "bad," for among righteous blacks as well as righteous whites, this was bad music played by bad people in bad places.

Robert Farris Thompson thinks that "jazz" and "jism" likely derive from the Ki-Kongo *dinza,* which means "to ejaculate." And the use of the concept "cool" among the Yoruba people of Africa is precisely the same as its use as popularized by jazz musicians in New York forty years ago — another usage that's remained constant with us. Said one Yoruba informant to Thompson, "Coolness is the correct way you represent yourself to be a human being."

In his remarkable book *Flash of the Spirit* Thompson writes:

> *Like character, coolness ought to be internalized as a governing principle for a person to merit the high praise, "His heart is cool"* (okan e tutu). *In becoming sophisticated, a Yoruba adept learns to differentiate between forms of spiritual coolness . . . So heavily charged is this concept with ideas of beauty and correctness that a fine carnelian bead or a passage of exciting drumming may be praised as "cool."*
>
> *Coolness, then, is a part of character . . . To the degree that we live generously and discreetly, exhibiting grace under pressure, our appearance and our acts gradually assume virtual royal power. As we become noble, fully realizing the spark of creative goodness God endowed us with . . . we find the confidence to cope with all kinds of situations. This is* ashe. *This is character. This is mystic coolness. All one. Paradise is regained, for Yoruba art returns the idea of heaven to mankind wherever the ancient ideal attitudes are genuinely manifested.*

Coolness doesn't mean coldness. Cool art is passionate art. In American culture, Miles Davis has been the exemplar of this aesthetic. When in 1949 and 1950 he was making the recordings — with, it should be noted, white musicians like Gerry Mulligan, Lee Konitz, Gunther Schuller and Gil Evans, as well as blacks like J. J. Johnson, John Lewis, Kenny Clarke and Max Roach — Davis would call those sessions "birth of the cool." But those sessions might better have been called "rebirth of the cool." They were, in music, a restatement of this African philosophy in American terms. That has been the life of all Miles Davis's music, and he himself has been absolutely sure of this.

Sidney Bechet, the great New Orleans reed player, feeling these linkages instinctively, called his music "the remembering song. There's so much to remember," he said, speaking of "the long song that started back there" — back in the South, and farther back still, in Africa.

To re-member. To put back together.

"Back there" are the people of Kongo, Dahomey, and Yorubaland. These were not jungle bunnies living, insensate, under an eternal sun. They were at once tribal and urban. It is hard, after so many bad movies and so many encrusted lies, to think of them as urban, and it is hard for a Western mind to conceive of "tribal" and "urban" together; yet as late as the mid-nineteenth century the Yoruba city of Abeokuta ran six miles along the bank of the Ogun River and had a population estimated at 200,000. Its craft industries thrived — ironwork, carpentry, tailoring, farming, toolmaking, textiles. And this urban culture had been thriving for centuries, a city probably older than, say, New York is now.

Here, intact, a little more than a century ago, was a mature culture which had chosen not to go the way of monotheism and the father gods, but had, like India, kept its polytheistic pantheon rooted in the Great Mother religions — or rather, in the religious impulse we now identify with the Great Mother. They shared with the Hopi, with the ancient Irish and Welsh and all the Druid peoples, as well as with the Chinese and the Egyptians, the mother symbol of the serpent — as Thompson puts it, "ancient Yoruba image of coolness, peace and power." And they shared with pre-Christianist Europe — the so-called pagan religions — the conviction that religious worship is a *bodily* celebration, a dance of the entire community; or, as it would have been called in Europe when such belief had been driven underground, a "sabbat." The mind-body split that governs European thought seems never to have entered African religion, African consciousness — at least not until imported there by missionaries. To meditate was to dance.

Hence in this culture the drum is so sacred an instrument that some are built only for display. They are too holy to touch. "An instrument of significant silence, not reverberation," is Thompson's phrase. It's as though such a drum is there to say that within the astonishingly complex rhythms of Africa — rhythms which Western musical notation is too crude, rhythmically, to express — within the multitoned din is a core of quietude, of calm, the focused silence of the Master, the

The Ashanti people, in modern Ghana on the west coast of Africa, were a major source of slaves. They still consider their music to be a dialog with gods. The drums here announce the death of a leader. Although native to this region, the voodoo movement blossomed much later in Africa than in the Americas. Re-immigrating Africans brought the religion to its place of origin — altered and misinterpreted, but full of passionate, new vitality.

Gert Chesi/The Last Africans

silence out of which revelation rises. Sometimes such a drum is six feet high.

This is the drum within. It exists in all people. As quiet a man as Thoreau heard it and spoke of it. What else was the "different drummer" that allowed him to know that violence can be met with peace, and that "the sun is but a morning star"?

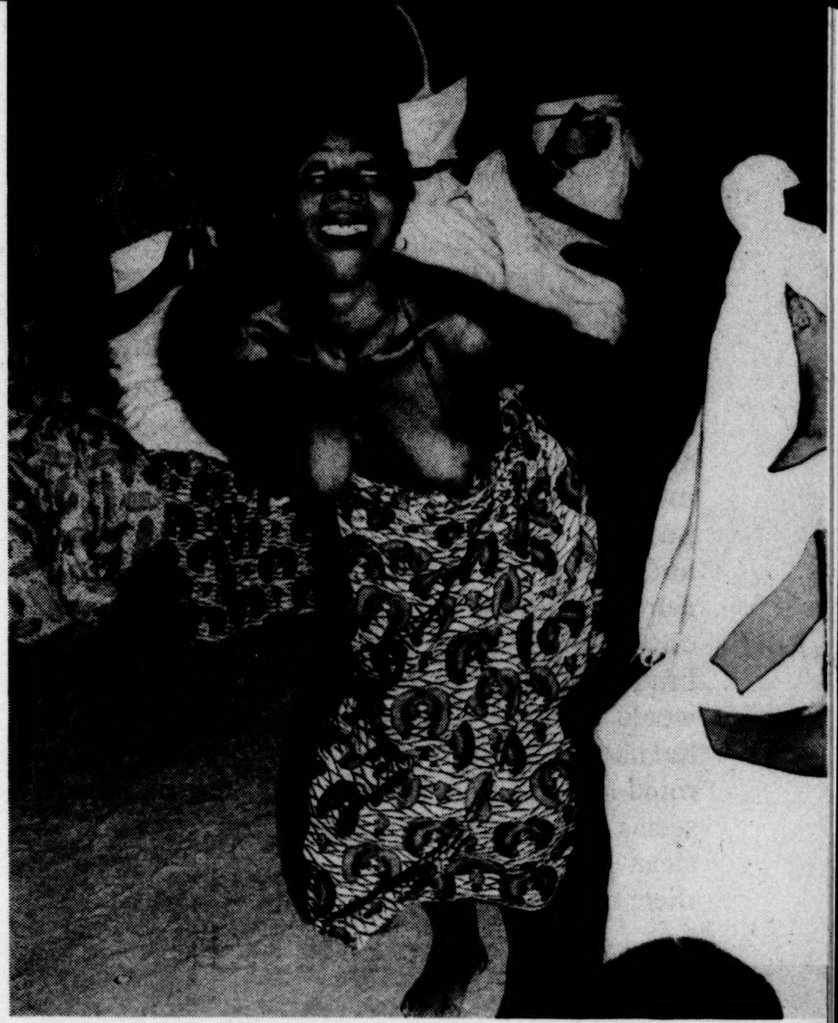
"Westerners always stay in temperate zones when they're looking for philosophy," Thompson said in an interview in *Rolling Stone.* "Jews become Buddhists, Methodists become Bahais; they never go south." What would they find if they did? What is the metaphysical goal of African thought?

Africans don't conceive of the other world — the world of the spirit, the divine — as existing above this one, or below it, or even alongside it. Neither heaven nor hell, nor Olympus or Hades, nor the Australian Dreamtime. For the African, the human world and the spirit world *intersect.* Their sign for this is the cross, but it has nothing to do with the Christianist cross, which impales a man in helpless agony upon the intersection. That is what the West feels. In Africa, the cross is of two roads intersecting to flow into each other, to nourish each other. The earthly and the spirit worlds meet at right angles, and everything that is most important happens at the spot where they meet, which is neither solely of one world nor the other.

The metaphysical goal of the African way is to *experience* the intense meeting of both worlds at the crossroads. Writes Thompson, "Ritual contact with divinity underscores the religious aspirations of the Yoruba. To become possessed by the spirit of the Yoruba deity, which is a *formal goal* of the religion, is to 'make the god,' to capture numinous flowing force *within one's body."* (Italics mine.)

Spurred by the holy drums, deep in the meditation of the dance, one is literally entered by a god or a goddess. Goddesses may enter men, and gods may enter women. Westerners call this "possession." That's too crude a concept for this, though good writers describing the phenomenon have been forced to use it; we have no other word or concept that comes close. But instead of possession, it seems more accurate to think of "a flowing through." The one flows through the other. They flow through each other. As Maya Deren put it in her study of Haitian Voodoo, *Divine Horsemen: The Living Gods of Haiti: "The loa [spirit], then, partakes of the head that bears it. The principle is modified by the person."* (Deren's italics.) The body, literally, becomes the crossroads. Human and divine are united within it — and it can happen to anyone.

What a frightening, utterly terrifying concept to our Western minds. Far from inflating the ego, the experience demolishes it while the state lasts.



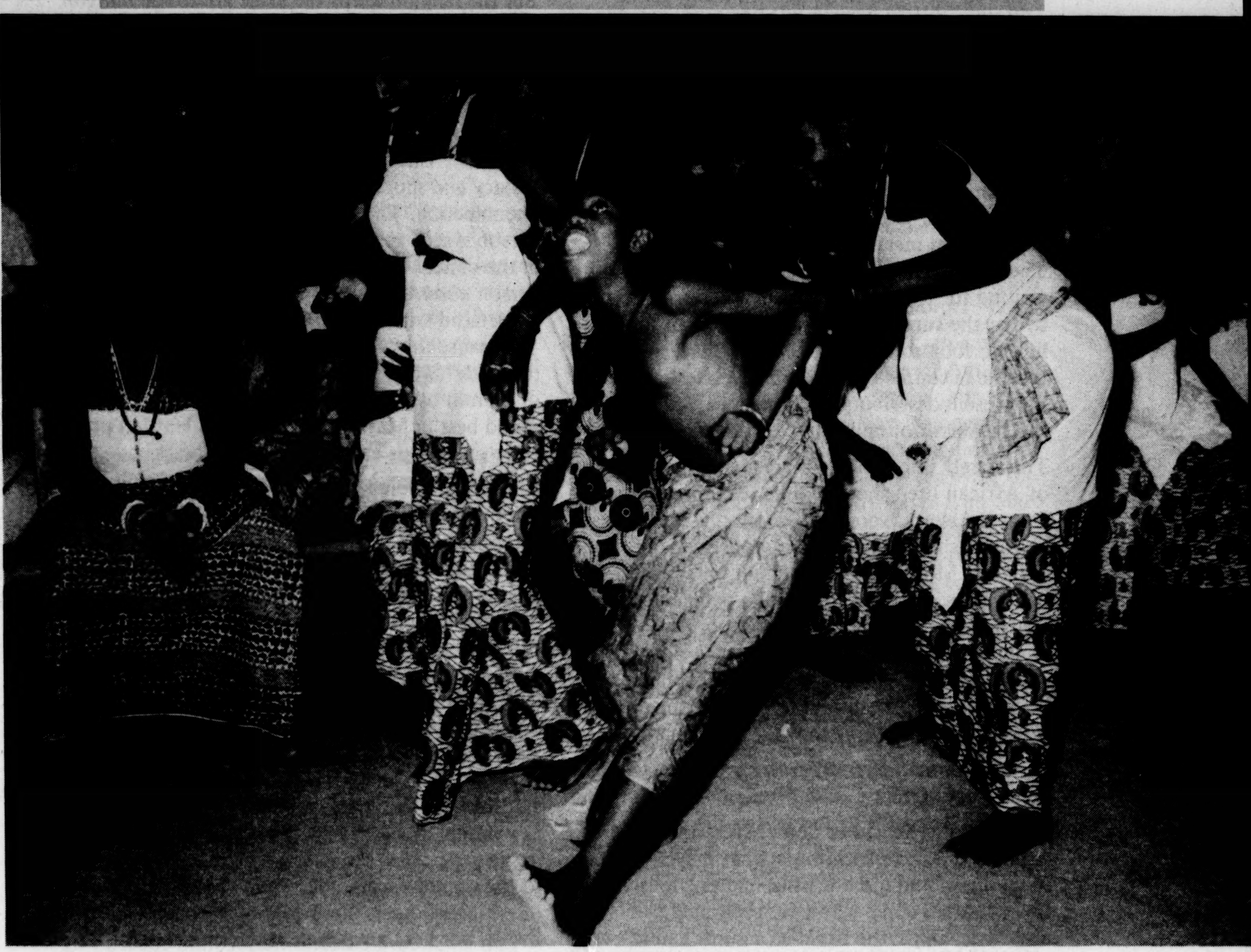
People who've been in this state commonly can't remember what they've said or done, and part of the function of the ceremony is to have witnesses who will later tell them what the god said through them. In the West we are so frightened of such states that we assume, when we see them in isolated cases, that they are symptoms of psychosis, if we are charitable; if we are not, we assume — as the first Westerners to see such things assumed — that this is possession by the Devil, and that anything, anything at all, is justified in blotting it out. It is no wonder we tend not to "go south" for our philosophy.

In Abomey, Africa, these deities that speak through humans are called *vodun.* The word means "mysteries." From their *vodun* comes our "Voodoo." and it is to Voodoo that we must look for the roots of our music.

TO GET TO VOODOO conceptually we must, as the Africans actually did, go through slavery. The fact of slavery is something else that is not race-specific. Africa practiced slavery long before the whites came. The whites did not bring a strange idea. And several strong African tribes grew rich by enslaving their neighbors and selling them to whites. (Later, in the New World, it was not uncommon for "free people of color" to own slaves.) The Atlantic slave trade could not have existed without the complicity of African profiteers.

This doesn't lift the onus of slavery from Christianist whites. But it gives us some idea of the depths, the complexities, of a slave's agony. Where

Shango girls and women are ridden by their gods. They carry the god's invisible presence on their backs while in a voodoo trance. Helpers rush forth to steady them. The Yoruba religion in Togo, Africa, of which the Shango make up one cult, is the basis of the development of voodoo in the New World. Yoruba slaves took their gods with them to South America and the Caribbean. There they mingled gods with Celtic and Christian ceremonies and saints to give birth to voodoo.



Gert Chesi/Voodoo

could one find one's being? Sold by one's kind to another kind. Taken under unspeakable conditions in a vehicle, and across an expanse, as inescapable to them as though a UFO were to take one of us to another galaxy. And then to see, in the eyes of your captors, not only brutality and fear but the linked impulses of revulsion and attraction — revulsion freely expressed and attraction twisted into rape and murder. And this went on for 300 years. How could one feel one's being?

We can measure the strength of the metaphysics of Africa — we can gauge the depth of its relevance to the human condition everywhere — by the bare fact that it survived through this centuries-long ordeal. "Lord, you made the night too long," Louis Armstrong once sang. He expressed his feeling through a music that had come through that night. The slaves kept their mysteries, their *vodun,* and their mysteries kept them.

Their effort may not be easily understood by a generation whose arts are more and more dependent upon the generosity of corporate foundations, universities, and government grants. The anthropologist Alfred Metraux described it like this in his classic *Voodoo in Haiti:*

> *The degree of [the African's] attachment to his gods may be measured by the amount of energy he spent in honouring them — and this at the risk of the terrible punishment meted out to those who took part in pagan ceremonies in which the colonists saw nothing but sorcery . . . The overexertion was so crushing that the life of a Negro sold to a plantation in Saint-Domingue was reckoned at never more than ten years. We can but admire the devotion of those slaves who sacrificed their rest and their sleep to resurrect the religions of their tribes — this under the very*

> *eyes of the Whites, and in the most precarious conditions. Think what energy, what courage it took to enable the songs and rites due to each god to be handed down across the generations!*

In the West Indies these practices survived. In North America they largely didn't. Except in New Orleans, slaves were not allowed to gather in groups, even for entertainment. Again except in New Orleans, drums were forbidden. In place of drumming, North American slaves developed what we now know as tap dancing, but the loss of the drum meant the loss of their ceremonies. Their Africa survived in silence, without form, waiting for the evolution of new forms to revive it. For the survival of Africa in African forms we have to look to the West Indies. There, we have reliable accounts dating from the late 1700s until the present describing ceremonies in which African metaphysics not only survived but thrived.

The stately impression we are given of the depth of African life is nothing like the vibes we get from the word "voodoo." Voodoo is the African aesthetic shattered and then desperately put back together. More than simply "put back together," it has been recreated to serve its people under the shattering impact of slavery and poverty. Voodoo is not so much Africa in the New World as it is Africa meeting the New World, absorbing it and being absorbed by it, and *re-forming* the ancient metaphysics according to what it now had to face.

How many metaphysics, ever, have been tested under such fire?

A vast synthesis had to occur. Tribes, thrown together, had to sift through what they had most in common and discard what had previously kept them apart. People who were separated by class and caste within the tribal structures had to come together on new terms. Catholicism had to be dealt with. From the late 1700s to this day Haitian Voodoos profess themselves to be good Catholics, and Catholic prayers have become an integral part of Voodoo ceremony — and had obviously been so for a long while when the fact was finally noted by white observers around 1820. Catholicism was used to saint worship, and had indeed fostered saint worship as an accommodation to pagan converts, so Voodoo presented nothing new. Africans, for their part, loved Catholic iconography. They felt they were seeing pictures of their gods. Saint Patrick holding a scepter and commanding snakes was obviously, as far as they were concerned, a shaman — a *hungan* — with a power-stick (in the popular print, the saint's scepter looks much like the ceremonial staff passed from speaker to speaker in some tribal councils as symbol of the right and authority to speak); he was communing with serpents. This became a favorite depiction of Damballah-wedo, the great serpent spirit. In Saint James on his horse, wielding his sword, they saw their warrior spirit Ogu. Writes Thompson, "Everywhere in *vodun* art, one universe abuts another."

But the religion keeps the same goal. The *hungan* may be healer, personal adviser, and political broker, but his — or, for a *mambo*, her, for women are as numerous and powerful as men in this religion — most important function is to organize and preside over the ceremonies in which the *loa*, the gods, "ride" the body of the worshiper. The ecstacy *and* morality of *vodun* intersect in this phenomenon. The god is seen as the rider, the person is seen as the horse, and they come together in the dance. When the god speaks through the person *about* that person, almost every sentence is prefaced with the phrase, "Tell my horse . . ." — because the "horse" will have no memory of the "ride" when it is over, and will have to learn of it from others. The morality implicit in this is stated best in Maya Deren's favorite Haitian proverb: great gods cannot ride little horses.

"There's a whole language of possession," Thompson says, "a different expression and stance for each god." All the accounts are clear that a god is instantly recognizable by its movements, and the movements are different for each. So if the ceremony is to honor Ghede, their equivalent of Hermes, perhaps Erzulie, their Aphrodite, shows up uninvited. But she is recognizable whether she rides a man or a woman because of her distinctive movements and behavior. This suggests a psychic suppleness that has to be staggering to any Westerner. Staggering, and frightening, if we are honest with ourselves. We may speak of a new model of the psyche, we may even be learning to experience life in a way that is more true to the way our many-faced psyches are structured — which is to say, the way they were created to live — but here are people who can *dance* it!

Here are people who can, to use Jungian terminology, *embody* an archetype — any single Voodoo worshiper may embody many during a lifetime of ceremonies. They will dance it, speak it, make love through it, manifest it in every possible way, entering and leaving the experience *without psychosis*, without "mind-expanding" drugs, *and* while having the support and help of their community, for all of this is integral with their daily lives.

Can there be much doubt that this is a metaphysical achievement as great as, say, the building of Chartres or the writing of the Bhagavad-Gita? It's no wonder that they risked so much to keep their metaphysics alive. These people built their cathedrals and wrote their scripture within their bodies, by means of a system that could be passed from one generation to the next. That system was rhythm.

In Haitian Voodoo as in Africa the drum is holy. The drummer is seen merely as the servant of the drum — he has no influence within the hierarchy of the religion, but through his drum he has great influence on the ceremony. Each *loa* prefers a fundamentally different rhythm, and the drummer knows them all and all their variations. He can often invoke possession by what he plays, though a drummer would never play a rhythm that would go contrary to the ceremony's structure as set by the *hungan* or *mambo.* There are drums which are ceremonially fed the night before a gathering, and then "put to bed" to bolster their strength. And here, too, are the drums of silence.

The drumming and dancing together form an entity from which, in Metraux's words (and my italics), "emanates a power *that affects the supernatural world* . . . If the music and dancing please the spirits to such an extent that they are affected, even against their will, then it is because *they themselves are dancers* who allow themselves to be carried away by the supernatural power of rhythm."

To dance is to meditate because the universe dances. And, because the universe dances, "he who does not dance does not know what happens."

This is, literally, the body and soul of Voodoo, but it is not what Westerners think of when they think of Voodoo. They think of drums, perhaps, but also of potions, spells, sorcery and zombies. Much of what's lumped together by Westerners that way are forms of healing and forms of prayer. Some of it is sorcery in the classic sense, invoking the supernatural for the control of others. I mention these only to note that Voodoo, like Judeo-Christianism, has its nether side, but it defines that nether area differently. For Judeo-Christianism the nether side *is* the body. The Fall came about through the body. The apple was *eaten.* The Fall *became* the body. The resulting mind-body split pervades everything. Even when Westerners go East for philosophy, to India especially, they often seek techniques for controlling and pacifying the body, which still, to their "enlightened" minds, is evil meat. Kundalini especially turns sex (body energy) into mind (spirit energy).

The nether side of Voodoo is completely different. Its witchy potions, amulets and evil spells are for interfering with and controlling the body, but the *implication* is that the body's progress is natural, even, as in the dance, holy, while manipulation is not. Manipulation is unclean. And to create a zombie (a corpse brought back to life) is the ultimate evil magic, because a body then is not allowed to go to its rest and join the *loa,* perhaps to become a *loa* itself.

I mention these to emphasize that even in its perverse forms — and every religion has its perverse forms — Voodoo consistently emphasizes that the holy and the earthly *are supposed to* meld in the body itself, and that to split the mind from the body is to do evil.

VOODOO IS FUNDAMENTALLY African, yet there is more than Africa in Voodoo. Metraux mentions Masonic elements, and he states that the Voodoos "have kept alive beliefs and rituals inherited from the ancient religions of the classical East and the Aegean world," but he doesn't elaborate. The mythologist Joseph Campbell, who edited Deren's book *Divine Horsemen,* says in his foreword that the "day-to-day epiphanies of Voudoun" are what the Greeks called being "full of the God," and that this is fundamentally the same experience "as precipitated much of the mythology preserved in Greek and Roman documents . . ." He also believed that it's possible "to recognize the well-preserved lineaments in Haitian Voodoo of an esoteric philosophy of the Gnostic-Hermetic-Kabbalistic order."

I don't mean to get so academic, but remember, we're on the trail of the metaphysics of American music. It's a very winding trail, it goes through jungles, and there are places where it's completely overgrown. The major studies don't mention that Africans were not the only slaves in the West Indies; they were not even the only slaves who had a non-Christian — usually called, in unconsciously slanted language, "pre-Christian" — cosmology. In the 1650s, after Oliver Cromwell had conquered Ireland in a series of massacres, he left his brother, Henry, as the island's governor. In the next decade Henry sold thousands of Irish people, mostly women and children, as slaves to the West Indies. Estimates range between 30,000 and 80,000. The higher number seems quite likely, in the light of a letter Henry Cromwell wrote to a slaver, saying "it is not in the least doubted you may have such number of them as you thinke fitt . . . I desire to express as much zeal in this design as you could wish." This Henry of the Uprighte Harte, as he called himself, said in another letter to a slaver who wanted only girls, "I think it might be of like advantage to your affaires there, and to ours heer, if you shoulde thinke fitt to sende 1500 or 2000 young boys of from twelve to fourteen years of age, to the place aforementioned. We could well spare them . . .."

The Irish slaves, most of them women, were mated with the Africans. There is "a tradition" — as historians sometimes call something which they have good reason to believe but can't prove — that up to the early nineteenth century there were blacks on some of the islands who spoke Gaelic. In any case, the West Indian accent becomes much more comprehensible when the Irish slaves are taken into account. If you don't know anyone from there, listen to the language in a film like *The Harder They Come.* The Irish tinge is unmistakable.

Why were these people sold into slavery? Henry gives us clues: "Concerning the young women, although we must use force takeinge them up, yet it beinge so much to their owne goode . . ." And in another letter, the one in which he suggests some men be taken too: "who knows but that it may be the meanes to make them Englishmen, I mean rather Christians." In other words, Henry was trying to sell off as many pagans as he could. This was at the height of the English witch-craze, which was a pogrom against those who still adhered to the Celtic religions. Ireland was the stronghold for the old beliefs. This, better than anything else, explains the mercilessness of Cromwell's massacres there. How widespread could such beliefs have been? I know a woman whose Irish grandmother, in the 1950s, still referred to Christianism as "the new religion," and taught her granddaughter what she could remember of the Celtic rites. Jeanne Moreau's film *L'Adolescente* tells of a similar experience she had with her grandmother in rural France in the late 1930s. Such stories speak of traditions that had strength through the nineteenth century in Europe. In Cromwell's time "sabbats" are well documented throughout the continent, and in Ireland the old ways were more a way of life than anywhere else.

And so we find, in West Indian Voodoo, a centerpost, a gaily painted pole very like the maypole that survives in Europe from Celtic pagan celebration, at the center of every ceremony. You see it plainly in Maya Deren's 1949 footage, made into a documentary in the 1950s, titled, as is her book, *Divine Horsemen.* The gods are said to enter through the centerpost, and the dances for most ceremonies revolve around the centerpost. We don't find this in the accounts from Africa. It speaks of a definite Irish-pagan influence. Virtually every account of Voodoo notes, at some point, how similar are its sorcery practices to the practices of European witchcraft, but no one has, to my knowledge, mentioned the connection with the Irish slaves.

We will never have evidence, but nevertheless we have a good case: practicing pagans from Ireland infused their beliefs with the Africans, mingling in Voodoo two great streams of non-Christianist metaphysics. The snake, after all, was a holy symbol to both — Saint Patrick driving the snakes out of Ireland, and the classic statue of the Virgin Mary with her bare foot crushing a snake, were political cartoons in the sense that they symbolized the Catholic dominion over Celtic paganism. In their beliefs and symbology the pagan Irish were closer to Africa than to Puritan England. This is part of our buried history, and as we bring it out into the light it will become more important.

All of them — the many, many Africans who created Voodoo and the, let's say, 40,000 Irish who gave to Voodoo some of their flourishes and sorcery — would have their revenge. Jazz and rock'n'roll would evolve from Voodoo, carrying within them the metaphysical antidote that would aid many a twentieth-century Westerner from both the ravages of the mind-body split codified by Christianism, and the onslaught of technology. The twentieth century would dance as no other had, and, through that dance, secrets would be passed. First North America, and then the whole world, would — like the old blues says — "hear that long snake moan."

THE QUESTIONS OF HOW Haitian Voodoo came to the continental United States, and the question of why jazz originated in New Orleans, are in fact parts of the same question. These questions haven't been joined before because the people who wrote extensively about Voodoo haven't known much about American music, and the people — mostly jazz critics — who've documented the history of American music, while establishing the beginning of the music in New Orleans, haven't considered *why* the music should have begun there rather than elsewhere. They've celebrated the facts without trying to interpret them.

New Orleans was unique in the South in more ways than one. It was the largest city and an important port through which the whole world passed. Until the Louisiana Purchase it was a Spanish and French city with a large population of "free people of color" (33 percent of its population in 1788, 25 percent in 1810). So it was the only major city in the United States that was not Anglo-Saxon and not Protestant, and not even all white. Here there was the same brand of Catholicism that had lived easily with African metaphysics in the West Indies. And, as I've said, believers in Voodoo usually proclaim themselves to be good Catholics.

A fascinating aside: while Catholicism and Voodoo blend, Protestantism and Voodoo are always at odds. A Haitian saying goes, "If you want the *loa* to leave you alone — become a Protestant." Metraux observed that some Voodoos become Protestants not out of faith but because "they felt themselves to be the target of angry *loa* and saw in Protestantism a refuge. Hence Protestantism beckons as though it were a shelter, or more precisely a magic circle, where people cannot be got at by *loa* and demons." In Protestantism we have the mind-body split at its most virulent, and anything which threatens the single-"I," egocentric view of the psyche is looked on with horror. A poverty of religious art. A Puritan morality trying to fulfill the function of spirituality. An equation of goodness with denial. It is no wonder Voodoo is beyond their toleration.

To return to New Orleans finally, it was the only place in the United States where slaves were allowed to gather among themselves for their "entertainments," as they were called, and, most importantly, to play drums: therefore, it was the only place where slaves were allowed to form a culture of their own.

Yet white people in Louisiana knew and felt threatened by Voodoo. In 1782 Governor Galvez banned the buying of any blacks from Martinique because Voodoo was so strong there that they "should make the lives of the citizens unsafe." Ten years later blacks from Santo Domingo and Haiti were also banned. Whites had reason to be afraid. Haiti was at the beginning of the slave revolution that would make it the second republic of the New World and the location of the first successful black independence movement. Haitian historians fix the beginning of the revolution at a Voodoo ceremony on August 14, 1791, and believe Voodoo to be responsible for giving the slaves the unity that made their victory possible.

The Louisiana ban was lifted in 1803, though the Haitian turmoil was at its height (independence would be proclaimed there in 1804). War continued in Haiti for some time, however, and many West Indians, including free blacks, emigrated to New Orleans because of the conflict. Robert Tallant, in his *Voodoo in New Orleans,* cites this as "the beginning of organized Voodoo" there, though the word "organized" may be too much of a word for what happened.

Every history of jazz goes back to the slave celebrations in a field that came to be called Congo Square in what was then the center of New Orleans. (Interestingly, the Oumas Indians once used the field for their corn feasts and considered it holy ground.) On Sundays, slaves from all over the city arrived, watched over by white police and an encircling throng of white spectators. The festivities were described in writing by fascinated and shocked spectators again and again. One of the best is from Henry Edward Durell, written in 1853, the heyday of the Congo Square dances:

> *Let a stranger to New Orleans visit of an afternoon of one of its holy days, the public squares in the lower portion of the city, and he will find them filled with its African population, tricked out with every variety of show costume, joyous, wild, and in the full exercise of a real saturnalia . . .*
>
> *Upon entering the square the visitor finds the multitude packed in groups of close, nar-*

Frederic Ramsey/Been Here and Gone

Gert Chesi/Voodoo

Brass bands were put together by farmers for Saturday afternoon relaxation. Many were named after the plantations where the men worked. The Laneville-Johnson Union Brass Band (circa 1950) played in the Alabama countryside at barbecues and summer picnics.

A statuette of Mami-Wata, the god of a contemporary voodoo cult in Nigeria. The snakes on the fetish signify a mermaid-like water spirit that renders women sterile and childless. The cult is a conglomeration of Hindu, Christian, and African animistic components.

> *row circles, of a central area of only a few feet; and there in the center of each circle sits the musician, astride a barrel, strong-headed, which he beats with two sticks, to a strange measure incessantly, like mad, for hours altogether, while the perspiration literally rolls in streams and wets the ground; and there, too, labor the dancers male and female, under an inspiration of possession, which takes from their limbs all sense of weariness, and gives to them a rapidity and a duration of motion that will hardly be found elsewhere outside of mere machinery. The head rests upon the breast, or is thrown back upon the shoulders, the eyes closed, or glaring, while the arms, amid cries, and shouts, and sharp ejaculations, float upon the air, or keep time, with the hands patting upon the thighs, to a music which is seemingly eternal.*

Keep in mind that Metraux observed in Haiti a century later: "The classic distinction between dances sacred and profane is not always very clear . . . at certain public jollifications dances are done which differ little or not at all from ritual dances."

This seems especially true of the Congo Square dances when you learn why Congo Square happened in the first place. The dances were an attempt by the city government to deal with the increase in Voodoo that had resulted from the recent Haitian immigration. It was feared that Voodoo meetings were being held to work sorcery against whites, and perhaps to plot revolution, so in 1817 the Municipal Council forbade slaves to congregate for any reason, including dancing, except in designated places on Sundays. Congo Square was the major place.

This is the way of things. It was precisely by trying to stop Voodoo that, for the first time in the New World, African music and dancing was presented both for Africans and whites as an end in itself, a form on its own. Here was the metaphysics of Africa set loose from the forms of Africa. For this form of *performance* wasn't African. In the ceremonies of Voodoo there is no audience. Some may dance and some may watch, but those roles may change several times in a ceremony, and all are participants. In Congo Square, African music was put into a Western form of presentation. From 1817 until the early 1870s, these dances went on with few interruptions, the dance and the music focused on for their own sake by both participants and spectators. It is likely that this was the first time blacks became aware of the music *as music* instead of strictly a part of ceremony. Which means that in Congo Square, African metaphysics first became subsumed in the music. A secret within the music instead of the object of the music. A possibility embodied by the music, instead of the music existing strictly as this metaphysic's *technique.* On the one hand, something marvelous was lost. On the other, only by separating the music from the religion could either the musics or the metaphysics within it leave their origins and deeply influence a wider sphere.

In his foreword to Maya Deren's book, Joseph Campbell quotes Ananda K. Coomaraswamy as saying, "The content of folklore is metaphysical . . . *So long as the material of folklore is transmitted, so long is the ground available on which the superstructure of full initiatory understanding can be built.*" (Coomaraswamy's italics.) In African culture, what they are calling folklore is at least as much musical as verbal. One day the music would carry initiations to people who would only vaguely sense they were being initiated, but who would feel compelled to join the dance. As happens with initiations, their dance would change their lives.

It is time to speak of Marie Laveau. I hesitate to, the way one would hesitate to tell an adopted child who his real mother is. In New Orleans she is a legend, but stories are told of her — conversationally and in print — without any attempt to assess her significance. If you go to her tomb in the oldest cemetery of the city — St. Louis Cemetery #1, right near where Storyville used to stand, and a brief walk from the old site of Congo Square — you will see fresh offerings and old ones, tidbits that are the remains of Voodoo charms, and chalked X's people have made to help their prayers find Marie. I suspected some tourist-conscious caretaker of doing it until I saw people — not tourists — leave plastic flowers. As for me, I left a note of thanks, for the more I consider the achievements of Marie Laveau, the more I feel her to be one of the most important Americans of the nineteenth century.

Yet what we know of her is piecemeal, though her name still resonates in New Orleans a century after her death. Marie Laveau was what we once would have called a witch and now might call a shaman. In Haiti she would have been called a *mambo* and in New Orleans she was called a queen. She was racially a mixture of black, Indian, and white. Her father was said to be a wealthy white planter, and her marriage certificate says she was illegitimate. A free woman of color — virtually all the New Orleans "doctors" (hungans) and queens were free blacks — both her first husband Jacques Paris and her second, de Glapion (whom she never officially married, but lived with for decades and to whom she bore, it is said, at least fifteen children!) came from Haiti. The first official record of her is of her first marriage in 1819. The marriage contract called her "a native of New Orleans," but the innovations she would bring to Voodoo were Haitian. By 1830 she was considered to be the queen of all the New Orleans Voodoos.

The dances on Congo Square hadn't stopped or even distracted the practice of Voodoo. Out on Bayou St. John and Lake Pontchartrain huge ceremonies occurred regularly. They would continue till nearly the end of the nineteenth century. When Marie Laveau became queen — overpowering, and, it is said, sometimes causing the death of other queens who wouldn't become subordinate to her — she presided both at Congo Square dances and at the lake ceremonies, as well as at the many smaller gatherings that were held for initiates alone. She is said to have given New Orleans Voodoo the Haitian stamp of Catholicism, and to have maintained throughout her long reign — she died in 1881 — that her people were Catholics and that she offered Voodoo to God.

White New Orleans knew her as a powerful woman. In her early years she was a hairdresser to New Orleans's elite, and she is said to have developed an intelligence network of hairdressers, servants, and slaves to ferret out the most embarrassing secrets of the white rich and to use them for blackmail. This seems to have made her invulnerable to the law. Over the years she was in court many times, on various charges and in various suits, and never lost a case. Neither her ceremonies nor her house (or houses) of prostitution were ever raided, at least so far as court records show. And she could come and go at will visiting the prisons (which she apparently did strictly as a lay Catholic, spending a great deal of time with prisoners who had been sentenced to death, bringing food, building altars, and praying with them). She opened the huge ceremonies on Lake Pontchartrain and Bayou St. John to whites and went so far as to invite the press at times. (From the beginning of the nineteenth century, whites — especially women — were heavily involved in Voodoo, especially the more orgiastic practices, and it was common, in the raids, for half the people arrested to be whites. This no doubt contributed to the southern saying that "there ain't no white people in New Orleans," and Bessie Smith's line to the effect that New Orleans is a right fine place, "whatever the folks do, the white folk do it too.") In 1850 the *Daily Picayune* referred to Marie Laveau in an article as "the head of the Voudou women," and she was still presiding over the more important lakeside ceremonies in 1869, when the *New Orleans Times* gave the last description of her doing so.

One of Robert Tallant's informants, an old man speaking around 1940, remembered what his grandfather told him when he was a boy: "Marie Laveau had a dance she did all by herself. She would wrap that snake around her shoulders and she'd shake and twist herself like she was a snake. Her feet would never move. She had another dance she did wit' a fish. She'd hold a big redfish behind her head and do her snake dance. My grandfather said that was something to see." This is virtually the same dance that Moreau de Saint-Mary described at the end of Haiti's colonial period: the *mambo* stands on a box in which the snake lies "and is penetrated by the god; she writhes; her whole body is convulsed and the oracle speaks from her mouth." (The snake in the box is also described in many accounts of the nineteenth-century New Orleans ceremonies.)

If we put it all together we see a black woman strong enough to have real authority in a time when neither blacks nor women had any, in the South right through the Civil War and Reconstruction. We see a woman who was a shaman, and therefore, to have any reputation, had to be a healer as well as a hexer. A woman through whom gods and goddesses — or, if you prefer, archetypes — spoke and who could induce this state in others. A woman who felt deeply enough about her theology to enforce its particular tenets — Voodoo-Catholicism — on her people. A woman who was hustler enough to make money through the gullibility of whites (and blacks, too, no doubt), tough enough to make more through prostitution, and cunning enough to protect herself and her religion from white law. And this money was not spent on herself: she lived most of her life in a small cottage on St. Anne Street in the Latin Quarter, with her virtual tribe of children and grandchildren, and had all the expenses of being a *mambo* — in Haiti it's the shaman's responsibility to provide the means for the ceremonies. It must have taken a steady flow of money just to keep up her work. *And* she was a dancer — by all accounts an incredible one, even among a society of incredible dancers. How many other figures have we in our history with such a range, with such long-lasting authority, and whose power — political, social, and spiritual — had nothing to back it up but her own intensity?

It is clear, both from the facts as we have them and from the power of her legend, that Marie Laveau centered and anchored what might otherwise have been continually more scattered and dissipating practices, especially with the shocks of the Civil War and Reconstruction — practices which, significantly, were ended on a large scale very soon after her death. Her centering effect can't be overestimated. What elsewhere in the South was a people that had to disguise its expression and conceal its spirit became in her reign a true culture, a culture that felt its identity deeply *as a culture*. And only out of such intensely felt culture could a creation like jazz be born.

Our accounts of Voodoo in New Orleans at that time are by whites who could not see past its strangeness and sensuality, but there's no reason to suppose it was any less a vehicle for African metaphysics than Haiti's, especially in the light of the astonishing musical flowering that soon

Michael Smith

came out of these people. Marie Laveau did not "create" this cultural moment — such things are not created by one person — but it's fair to assume that a person of her range was aware of what was at stake. She saw a role to be played in that world and she played it to the hilt, helping to coalesce a scattered and oppressed people into a culture. Out of that intensely localized culture would come a music that would leave its mark on the whole world, a music born out of what music historian Alan Lomax calls "a moment of cultural ecstasy." The shaman Marie Laveau is — along with the Indian medicine men, the Puritan preachers, the Mormon prophets, and our greatest revivalists — one of the major religious figures in American history.

The last account we have of her was an article published in 1886 by George W. McCable, a journalist considered in the South of that day second only to Mark Twain:

I once saw, in extreme old age, the famed Marie Laveau. Her dwelling was in the quadroon quarter of New Orleans, but a step or two from Congo Square . . . In the center of a small room whose ancient cypress floor was worn with scrubbing, sprinkled with crumbs of soft brick — a Creole affectation of superior cleanliness — sat, quaking with feebleness in an ill-looking old rocking chair, her body bowed, her wild, gray witch's tresses hanging about her shriveled yellow neck, the queen of the Voodoos. Three generations of her children were within the faint beckon of her helpless, wagging wrist and fingers. They said she was over a hundred years old, and there was nothing to cast doubt upon the statement. She had shrunken away from her skin; it was like a turtle's. Yet withal one could hardly help but see that the face, now so withered, had once been handsome and commanding. There was still a faint shadow of departed beauty in the forehead, the spark of an old fire in the sunken, glistening eyes,

Every Sunday afternoon in New Orleans, Black Indian "tribes" meet to practice ritual dances that they will perform in full-feathered costumes during Mardi Gras. Songs, with chanted responses, frenzied dancing, and strong community leadership, mark the "practices" as a kind of Spiritual Church. The Black Indians are black, but not Indian. "Masking Indian," as it's called, has been a tradition in Haiti and Trinidad since the beginning of the 18th century.

and a vestige of imperiousness in the fine, slightly aquiline nose, and even about her silent, woebegone mouth . . . Her daughter was also present, a woman of some seventy years, and a most striking and majestic figure. In features, stature and bearing she was regal. One had but to look at her, and impute her brilliances — too untamable and severe to be called charms and graces — to her mother, and remember what New Orleans was long years ago, to understand how the name of Marie Laveau should have driven itself inextricably into the traditions of the town and the times.

On June 16, 1881, New Orleans's newspapers announced that Marie Laveau was dead. They printed long, nostalgic articles about her. The *Times Democrat* wrote, "Much evil dies with her, but should we not add, a little poetry as well?" By "evil" they meant everything associated with the drum. But the "evil" they spoke of was just beginning.

AMERICAN MUSIC STARTS here. At least, American music as we've known it. Within ten years of Marie Laveau's death the brass bands of New Orleans would be playing sounds no one had ever heard before. How important was Voodoo, the African metaphysical system, in that time and place? There are contemporary accounts of thousands of Voodoo celebrations on Lake Pontchartrain as late as 1875, and in 1895 they were written of as the quite recent past. All the men who were first playing jazz in the 1880s and 1890s would likely have known them firsthand, and most of them would be old enough to remember the dances of Congo Square as children (the dances were stopped in 1875 when New Orleans enacted its first Jim Crow laws, fobidding blacks to gather in a public park). In the red-light neighborhood known by musicians as "the District," and in legend as Storyville, Voodoo was, as one recorder has it, "the true religion." Al Rose, in *Storyville,* writes that "an association of Storyville madames, which met regularly, agreed to refuse to use the services of Lala and other [Voodoo] practitioners on each other." The favorite queen of the madames was Eulalie Echo. They were always requesting her services for cures and hexes. Her real name was Laura Hunter, and she raised Jelly Roll Morton. She was his godmother.

WHAT WAS THE STRENGTH of these forms? How seriously were they taken at that late date?

They show both a conscious and an unconscious survival of the old ways. The best examples of their conscious survival are the "Indians" of New Orleans, "gangs" of black men who dress head to foot in elaborate costumes of bright feathers, with huge headdresses, a true spectacle as they sing their songs in the parades of Mardi Gras. They give us some fascinating clues.

In 1938, Alan Lomax sat Jelly Roll Morton down at a piano in the Library of Congress and for five weeks recorded a verbal and musical autobiography. Morton described the Indians as he saw them in the New Orleans of his youth. He was born in 1885, and he remembers them from his earliest boyhood. In 1938 Morton hadn't lived in New Orleans, or even been there, for more than twenty years, but he sings the refrains of the black Indians — so-called nonsense words that have no literal meaning in any language spoken in New Orleans or anywhere else.

In the mid-1970s, one of these "tribes," the Wild Tchoupitoulas, recorded an album produced by the superb New Orleans rhythm-and-blues artist Allen Toussaint and coproduced, with background rhythm and vocals, by another living repository of New Orleans music, the Neville Brothers. Some of the tunes are credited to the Nevilles, some to "Big Chief" George Landry, then leader of the Wild Tchoupitoulas; but incorporated into these compositions as introductions and refrains are *precisely the same melodies, and precisely the same "nonsense" syllables,* that Jelly Roll Morton recorded forty years before, remembered from his boyhood nearly fifty years before that. When you remember that the black Indians were well established by the time Morton was born, you're looking at precise musical preservation, in spite of the onslaught of media, for well over a century.

In Maya Deren's 1949 documentary, you see Haitians on parade in exactly the same costumes; you see them in Brazil's celebrations too. Deren's footage of Haitian ceremonies shows them opening with two flag-bearers flanking a sword-bearer, corresponding exactly to the "flag-boys" and "knife-boys" of the black Indians in their ritual place as they parade. The authentic Voodoo ceremony filmed in Marcel Camus's *Black Orpheus* (1958) in Rio de Janeiro, shows the *hungun* in Indian headdress and with a ceremonial bow hung around his shoulder. In Haiti and Brazil the connection with Voodoo is clear and strong; in New Orleans, nobody's saying. The point is that *forms* which were certainly begun before the Civil War, and perhaps in Haiti much earlier, and clearly connected with Voodoo, have remained constant and vital in New Orleans until today. And spirit always adheres to forms. *That is why forms survive.* Because even when specifics are forgotten, a form can retain the aura of what originated it and so pass on not the doctrine but the sense of life.

A far less conscious but far more important survival of African metaphysics in North America manifests itself in the black Sanctified and Holiness churches — where even today in the services, the women wear white dresses, with white kerchieflike headpieces, that are identical to what the Haitian Voodoo women wear in ceremonies photographed by Maya Deren. But the relationship of black churches to Africa goes far deeper than that. As James Baldwin puts it in *The Devil Finds Work,* "The blacks did not so much use Christian symbols as recognize them — recognize them for what they were before Christians came along — and, thus, reinvest these symbols with their original energy."

Even free blacks were not allowed to have their own churches, even Christianist churches, in North America until the 1840s. The movement grew in the 1850s, and after the Civil War it was everywhere. But 300 years is a long time to worship Jesus with African forms, and the style of the black church was instantly recognizable as African. Jefferson Hamilton of New England described one of the earliest churches in Louisiana in April of 1840: "The meeting commences with singing, through the whole congregation; loud and louder still were the devotions — and oh! what music, what devotion, what streaming eyes, and throbbing hearts; my blood ran quick in my veins, and quicker still . . . It seems as though the roof would rise from the walls, and some of them would go up, soul and body both."

Soul and body both. From the first, there was no mind-body split in the *practice* of African Christianism, though the doctrine was just as fundamentalist, just as Puritan. The *style* of southern fundamentalism, as we know it today, white and black, came straight out of the African churches. Watch Jimmy Swaggart preach on television, and then see Ousmane Sembene's Senegalese film *Ceddo,* and you see that the style of address and retort that most fundamentalist preachers use is the formal style of an African tribal meeting. There's literally no difference but that in the tribal setting, as presented by Sembene, the Africans are more formal and have more decorum.

This is the bind the South has been in for at least a century and a half. A religion of denial worshipped with a religious *practice* that is anything but denial — the church sending out two contradictory signals at the same time, one to the body and one to the mind. So it should be no surprise that rhythm and blues and rock'n'roll leaped from the South. Little Richard, Elvis Presley, Jerry Lee Lewis, Chuck Berry, Janis Joplin, all would rise out of places within half a day's drive of New Orleans, and they would sing their music with holy fury, with bodily abandon, that simply had never been seen before in Western performance. Little Richard would end up as a Pentecostal preacher doing *his same act* to a Christianist liturgy — in a quieter vein, later, so would soul singer Al Green. Elvis Presley would contritely record the spirituals of his youth. Jerry Lee Lewis, who was a preacher for a short time in his youth, would be convinced that he was possessed by the Devil but would play anyway — "I'm draggin the audience t'Hell with me," he would say. Virtually all the most influential black singers would begin (and this is still so) in church: Aretha Franklin, Sam Cooke, Marvin Gaye, and on and on, the list too long to write here. A doctrine that denied the body, preached by a practice that excited the body, would eventually drive the body into fulfilling itself elsewhere. Above all denials, the worshiper would long for the body-mind unity felt when the church was "rocking." In those churches the African metaphysic and the Western metaphysic would blend, clash, feed and battle each other, in each and every soul. It is no wonder there is such weeping in a fundamentalist service.

The styles of a Jimmy Swaggart (who, by the way, is Jerry Lee Lewis's first cousin) would contradict every word he preached, and both he and his listeners would be ensnared in that contradiction, and this would be the source of the terrible tension that drives their unchecked paranoias.

W. E. B. DuBois described black Christianist religion as a meeting of three elements: "The Preacher, the Music, and the Frenzy." It is in the frenzy that, with both black and white fundamentalists, we find African Voodoo absolutely intact, with merely the symbols changed. The object of the Voodoo ceremony is possession by the god. Possession by the Holy Ghost is as much "a formal goal of the religion" in Holiness and Pentecostal churches as possession is in Voodoo. Writes Paul Oliver in his *Songsters and Saints:* "Placing himself in the hands of God, the supplicant sought possession by the Holy Spirit . . . Glossolalia, or uttering unintelligible syllables believed to be the language of the Holy Ghost, was evidence to many that the speaker was possessed by the Holy Spirit . . . and this was an essential part of the process of sanctification. People possessed of the Spirit in church might 'fall out' in a trance and might even require to be forcibly held down or controlled until they came around."

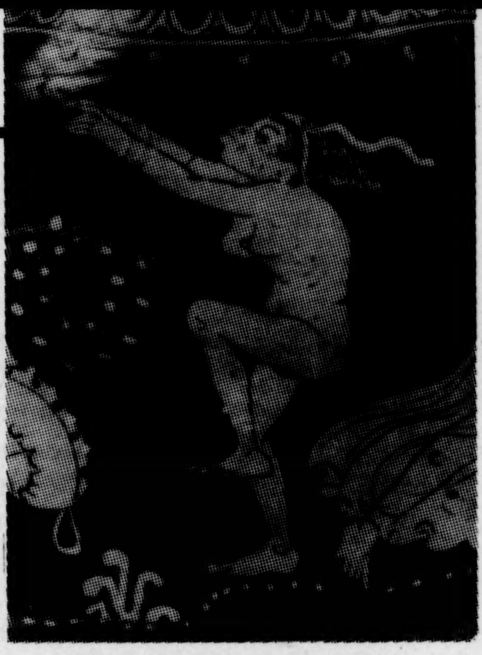
Metraux observed the relationship, too, saying that "a pentecostal preacher describing his feelings when 'the spirit was upon him,' listed to me exactly the same symptoms as those which I heard from the mouths of people who had been possessed by the *loa* . . . Undeniably the ecstasy which breaks out during the ceremonies of certain Protestant sects in the South of the United States reflects a survival, if not of the rites, then at least of religious behavior."

The wild movements of the "horse" mounted by the godly "rider"; the wild speech, including speaking in tongues, which on Haiti is sometimes referred to as "talking with Africa"; the unpredictability of the possession, how, excited by the music, the frenzy can strike people who don't want it and don't believe in it — you find all of these central Voodoo phenomena in most black and white fundamentalist churches. Maya Deren tells of first resisting and then being overpowered by a god during a ceremony she was observing; James Baldwin, in *Go Tell It on the Mountain,* describes suddenly being possessed against his will by the Holy Ghost. Maya Deren described the climax of her involuntary-possession experience as "a white darkness"; Baldwin, after an infinitely more detailed and subtle passage, says, "the darkness, for a moment only, was filled with a light I could not bear." It should be no surprise that Baldwin's Christianist sense of the experience separates the light and dark at the climax, while Deren's Voodoo sense of the same experience blends both into "a white darkness." ■

The concluding half of this story will appear in the next issue of Whole Earth Review.

Michael Smith

At the Infant Jesus of Prague Church, a member gets in spirit. "I can get in spirit and the spirit will tell me who you are, what you come from, and whether your intentions are good . . . a lot of people are healed if they come in good faith," says Archbishop Johnson. "When you feel like dancing, you dance. When you feel like shouting, you shout. When you feel the visitation of the spirit, you do whatever you feel like doing . . . it's better felt than told."



Mumbo Jumbo

*Much of the territory explored by Michael Ventura in "Hear That Long Snake Moan" has also been explored by Ishmael Reed in his novel **Mumbo Jumbo**, a lifelike detective saga and mind-bending metaphysical thriller set soundly in 1920s Manhattan. The text is hilariously and appropriately illustrated, footnoted, and graced with a highly useful bibliography.*

***Mumbo Jumbo** is a prose-poetic gumbo, the ingredients of which have been painstakingly gathered, prepared and simmered over a low blue flame. There's lots to be tasted, savored and pondered — adventure, scholarship, occult and pop mythology, vaudeville, Egyptology, Africana, Euro-Afro-American folklore, ragtime, boogie-woogie, everyday magic and romance.*

Ishmael Reed has thoughtfully chosen to base his vision of classical American civilization in the turbulent, freewheeling "Jazz Era" past, pitting myth and loa against one another to produce a beautifully modulated work of art that's as meaningful as it is novel. —*Al Young*

Mumbo Jumbo
Ishmael Reed
1978; 256 pp.
Out of print; may be
reprinted by Atheneum
Publishing Company

•

"I know that the politicians of this era will be remembered more than me but I would like to believe that we work for principles and not for self. 'We serve loas,' as they say. Charismatic leaders will become as outdated as the solo because people will realize that when the Headman dies, the movement dies instead of becoming a permanent entity, perispirit, a protective covering for its essence. Yes, Abdul will become surrounded by people who will yield inches of their lives to him at a time; become the satellites rotating about the body which gives them light; but that's ephemeral, the fading clipping from the newspaper in comparison to a Ju/Ju Mark a 1,000 years old. No, La Bas, the New York police will wipe out VooDoo just as they did in New Orleans, but it will find a home in a band on the Apollo stage, in the storefronts; and there will always be those who will risk the uninformed amusement of their contemporaries by resurrecting what we stood for."

•

The African race had quite a sense of humor. In North America, under Christianity, many of them had been reduced to glumness, depression, surliness, cynicism, malice without artfulness, and their intellectuals in America, only appreciated heavy serious works. ('Tis the cause, Desdemona.) They'd really fallen in love with tragedy. . . . After all, how could primitive people possess wit. LaBas could understand the certain North American Indian tribe reputed to have punished a man for lacking a sense of humor. . . . Nowhere is there a portrait of Christ laughing. Like the Marxists who secularized his doctrine, he is always stern, serious and as gloomy as a prison guard. Never does 1 see him laughing until tears appear in his eyes like the roly-poly squint-eyed Buddha guffawing with arms upraised, or certain African loas, Orishas.

Pantheon Fairy Tale and Folklore Library

This series of books offers attractively designed and illustrated collections of folktales, myths, and fairytales from around the world. African, Irish, Norse, Italian, Russian, Chinese tales, and more, provide insights into different cultures and genuine entertainment. —*Jay Kinney*

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The Four Champions

The Horny Head champion, the Penis champion, the Farting champion, and the Testicles champion set off on a journey together. They came to a town, where they lodged in the compound of the chief. Bundles of corn were sent to feed them from the chief's storehouse — but the town had nowhere to thresh it!

Then the Horny Head said, "May the chief's life be prolonged! Here we are and yet they're looking for a place to thresh. Let them come and do it on my head!" So they came and undid the bundles on Horny Head's noggin.

But then they had to find a piece of wood with which to thresh the corn so Penis said, "May the chief's life be prolonged! Here we are now, and yet they're looking for something to thresh with! Just give me a bit of room and you'll see!" And pulling out his penis, he began threshing, and presently the corn was threshed.

But there was no wind, and word was brought to the chief that, though the corn was threshed, there was no wind and so could be no winnowing. Then said the Wind Breaker, "May the chief's life be prolonged! Here are we, and in spite of that they're still looking for wind!" And he unveiled his anus, and let rip. And all the chaff was blown away, leaving just the grain.

But they had no bag to put the grain in. So Testicles said, "May the chief's life be prolonged! Here are we, and in spite of what we've done, they're still looking for a sack to catch the grain!" And opening his scrotum, he said, "Bring me the grain and pour it in here." And they did it, and he carried the corn home.

All right, among the four of them that exercised his special gift, who was the champion?

—*Hausa, African Folktales*

Les Blank/Flower Films

Les Blank's celebratory, life-affirming documentaries capture the rich tradition of Southern blues musicians Lightnin' Hopkins and Mance Lipscomb, as well as the New Orleans music scene.

Tex-Mex music, the Cajuns of Southwest Louisiana, the Zydeco music of Clifton Chenier, and the dance, food, music, and religion of the polka have also been carefully recorded by Blank. He's fond of food, music and earthy culture, and that's what his films lovingly dwell on.

In the case of **Always for Pleasure** *(his film on the music of New Orleans, featuring a great performance by the Wild Tchoupitoulas), Flower Films suggests showing the movie in "SmellaRound" and will be happy to provide a recipe for Red Beans and Rice to be served during the screening. I saw the film in "SmellaRound" when it was first released, with Blank up in front passing out paper cups full of beans and rice, and can attest to the palate-pleasing effectiveness of this technical breakthrough.*

Burden of Dreams, *Blank's film on the making of Werner Herzog's* **Fitzcarraldo** *in the jungles of Peru, is the best "making of" film ever produced, and* **Chicken Real**, *an early industrial documentary made for an automated chicken-growing operation, is simply the funniest film about chickens I've ever seen. —Douglas Cruikshank*

BURDEN OF DREAMS

Clockwise from top left: A Life Well Spent; Always for Pleasure; Chulas Fronteras; Burden of Dreams.

Les Blank/ Flower Films

Catalog **free** from:
Flower Films
10341 San Pablo Avenue
El Cerrito, CA 94530

Arhoolie Records

Arhoolie Records, founded and operated (with a passion) by ethnomusicologist Chris Strachwitz, is a superb source for both old and new recordings of hard-to-find American regional music, much of it from the Deep South. In addition to Zydeco accordionist Clifton Chenier and other Creole/Cajun artists, the label offers a seven-album History of Louisiana Cajun Music with recordings dating back to the early 1920s. Equally well represented in Arhoolie's catalog is the music of classic country bluesmen Roosevelt Holts, Black Ace, Son House, Mississippi Fred McDowell, Juke Boy Bonner, Bukka White, Tampa Red, Blind Boy Fuller, Snooks Eaglin, and dozens more.

Arhoolie also carries a wonderful selection of ethnic music — Hawaiian, Ukrainian-American, Austrian, Mexican, Yiddish, Polish — including something described as "The Texas Czech-Bohemian Band's Early Recordings, 1928-1958." —Douglas Cruikshank

Arhoolie Records

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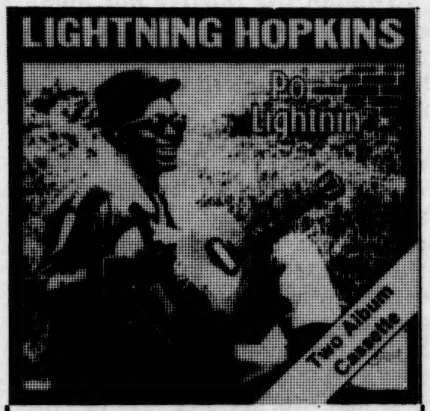

LIGHTNING HOPKINS

Side 1: "Lightning Sam Hopkins"
Arhoolie LP 1011
Side 2: "Po' Lightnin' "
Arhoolie LP 1087
All songs listed on back of insert

ARHOOLIE C-201

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Smokey Hogg: Penitentiary Blues. **John Hogg**: West Texas Blues ★ Black Snake Blues. **Mercy Dee**: Lonesome Cabin Blues. **Frankie Lee Sims**: Lucy Mae Blues ★ I'm Long, Long Gone. **Buddy Chiles**: Mistreated Blues. **Anonymous**: Tom Moore's Farm. **L.C. Williams**: Trying, Trying ★ Hole In The Wall. **Texas Alexander**: Crossroads. **Lightning Hopkins**: Late In The Evening.

BUKKA WHITE
VOL. 1

1019 BUKKA WHITE
"Sky Songs" — Vol. 1
(Vocal with Guitar or Piano)

Jesus Died On The Cross To Save The World ★ Sugar Mama ★ My Baby ★ Alabama Blues.

CLIFTON CHENIER

Photo: Craig [illegible]

MAMBO GANI!

In Swahili, "mambo gani?" means "what's happenin'?". If I really wanted to know what was happening in a place, I'd read the back-page items and letters-to-the-editor in a local newspaper. One of our readers in Nairobi, Kenya sent us an extensive collection of clippings she has saved from papers there that show what's on the minds of folks in everyday life in Kenya. She picked a few for these pages. I wonder what's on the back pages in Zaire, or South Africa? Or India and Brazil? Readers, we welcome reports of mambo gani on the whole Earth.

—Kevin Kelly

Acting Chief slaps ban on gossiping in trading centres

'GET OFF YOUR BOTTOMS'

THE ACTING Chief of Gikindu Location in Murang'a District, Mr. John Mwangi Wandia, has directed that, from now on, nobody should be found sitting idle in trading centres of the location before 3 p.m.

He lamented that a large number of middle-aged people spent a lot of time gossiping in trading centres instead of doing productive work on their *shambas.*

Mr. Wandia pointed out that a few people in the area were still bent on brewing and consuming *chang'aa* and smoking *karubu* and bhang.

He warned that such people would only have themselves to blame when apprehended and given heavy jail sentences.

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2 women 'made man impotent'

TWO WOMEN alleged to have rendered a man sexually inactive by casting a spell on him have been fined Shs. 600 each or six months in jail in default by a Kapenguria court.

Cheplamun Kilikwang and Cheposepey Komolikepey were arrested after the man went to a police station to seek permission to kill them following claims that they had bewitched him.

In their defence, the women said the man was impotent and when they had successfully treated him, he refused to pay them.

As a result of this they decided to reduce his sexual powers, the court was told.

Passing sentence the magistrate Mr. F. K. Cherogony, who is also the District Commissioner for West Pokot, said that people who practised witchraft were dangerous because they were a threat to peace in the community. — *K.N.A.*

Forced to give 'chai'

I AM very sorry to write this letter, but I have to write it.

It is a pity to note that some city council health clinics are using sick patients as a way of getting money.

On February 15 a friend and I were sick and we decided to go to a local clinic.

When we arrived we were told to produce the old cards, but unfortunately we did not have them.

We were told to wait and after 10 minutes or so the man giving cards called us. He told us if we wanted new cards immediately we could get them only we were prepared to produce 20/-

I asked him for what, and he told me I should know that for anything to run smoothly you must produce "chai". We told him we would rather stay sick or go to Kenyatta Hospital than give him even a coin.

Gabriel Kamau,
Nairobi.

Theatre is intolerable

ALLOW me to air my views on the Zinj Theatre in Lamu. When it came into operation we were all happy, but the way patrons now are treated leaves a lot to be desired. You can book a seat as early as Thursday for a Saturday show, but you will be surprised to be told at the door that all tickets have been sold. Secondly, many chairs from outside are being brought into the theatre and sold at unbelievable prices. These seats are known as "EXTRA".

Though the theatre has many ceiling fans, they are so high that they have no effect. The heat one suffers in the theatre is intolerable.

Another thing this cinema does is what I term "robbery without violence". It advertises a good film, and the house is packed to capacity, but when the show starts you see a different film altogether. This is cheating the public and it is high time the management stops it.

Black-markerting is of the highest proportions. Tickets are sold to cinema workers who in turn sell them to patrons at exorbitant prices, particularly when the show is attractive.

Will the authorities concerned please help?

"Disgusted Film Fan,"
Lamu.

Uganda women on 'sex fast'

UGANDAN women this week began a seven-day "Sex relations fasting" in order to show their grief towards the suffering in the country.

The idea is the brainchild of one of the leading women in Uganda, Mrs H. A. Ossiya who in a statement called upon women "not to submit themselves to their men — not out of hatred but in search for that deep true and undisturbed love which God meant and made for us".

On behalf of the womenfolk in Uganda, Mrs Ossiya apologised to all husbands for "any inconvenience that may be caused" by the sex fasting.

She stressed the fast was: "In memory of our sisters who have died in the most shameful way by having their stomachs slit in search of bombs, in sympathy for our young daughters who have had their innermost being raptured, and for other atrocities that have been committed against the people".

Mrs Ossiya is a widow working with the French embassy in Kampala.

BE QUICK IF YOU WANT TO WIN A COW...

WITH just a few days before the closing date of the Shinda Ng'ombe (Win a Cow) competition, competition forms continue to pour in.

The competition was organised by Chesebrough-Pond's, manufacturers of Vaseline White Petroleum Jelly, to encourage farmers to use Vaseline for their daily use.

For the competition, all one is supposed to do is buy a 50 gram jar of White Petroleum Jelly. On it there is a form written "Shinda Ng'ombe" and questions have to be answered. There are 20 cows to be won. But you'll have to hurry before the competition closes.

•One of the winners of "Shinda Ng'ombe", Mr. Charles N. Kisswa of Machakos is pictured receiving a cow from the area sales representative of Chesebrough-Pond's Mr. John Njogu.

'BORROWED' BOX BRINGS BABOON BABY BOOM...

By NATION Reporter

THE theft of a little red box from a tourist's room has led to a sudden increase in the baboon population at Treetops.

The strange story came to light after it was noticed that baby baboons seemed to be scampering about everywhere in the area.

As Geoffrey Gachihi, assistant manager (rooms) at Outspan-Treetops explained: "Normally, none of this would raise an eyebrow, except for the fact that these merry little fellows were born out of season (or out of wedlock, one might be tempted to say!).

When the escort-hunter, who is always in attendance at Treetops, was asked for his opinion it was learned that some months previously a woman had left the window of her bedroom open.

Popping in and out of the room through the window was easy for little baboons who made off with a small red box.

Moments later, the owner of the box confided to the hunter: "Don't breathe a word of this to the authorities, but those thieving apes have just taken off with my fertility pills."

Cattle and daughters

MR. JULIUS Kariuki's letter "Goods or Wives" *The Standard*, March 9, 1979) should precisely have been titled: "Women (wives) are economic goods." And I think they are!

I do not happen to be one of those readers whom you alluded to in your comment under Mr. Kariuki's letter whom would disagree with the latter's arguments.

Even in traditional African society, men tended to commercialise their daughters and an elder normally calculated the amount of wealth in his possession in terms of "land, live-stock and daughters."

At drinking parties intoxicated elders were normally at ease when singing about their cattle and daughters. Strictly speaking dowry was a price for the bride. Marrying a wife meant "buying" a woman and the two terms were literally synonymous.

In support of Mr. Kariuki, dowry should either be abolished or wives should hence-forth be classified as economic commodities.

GITHINJI wa CHEGE.
Nairobi.

BLACK CHICKEN AND EGGS...

WITCHCRAFT, WHICH dominated Kenya soccer a few years ago, has reared its ugly head again.

On Monday Gor Mahia players and officials unearthed a black chicken and several eggs buried in the ground at the Nairobi City Stadium, which they believe was a spell put there to weaken the team this season.

According to an official of the club, the eggs were found buried at the place near the half-way line flag where the fourth referee sits.

After discovering this, the official said, players, officials and some of the fans who had gone to the stadium to watch the team in training, conducted a search and discovered a big black chicken buried on the side of the "Russian" stand.

"We do not know who took the chicken and the eggs to the stadium and their intentions," he said.

—K.N.A.

Let mosquitoes feed on blood

FACED WITH no alternative, a mosquito finds a proper diet on man's blood. On the other hand man, acting instinctively, demolishes the poor insect with one slap.

I think man should show more sympathy towards the poor mosquitoes which, by right, must feed on blood. Why doesn't man become a blood donor to these animals for whom blood is a natural right? Although some of the mosquitoes are detrimental to our health, we can still escape by buying medicines which man himself has made against such contingencies. Moreover, the absence of mosquitoes would paralyse the economic well-being of some commercial entities which make anti-malarial tablets. Mosquitoes themselves are therefore living assets to these commercial men.

I suggest man should gently whisk off a mosquito, rather than giving it a deadly slap.

AMBOGA ALONE,
Uriri.

Why Cults Flourish

INTERVIEW WITH GORDON MELTON

Though Gordon Melton is hardly a household name, there is probably no one more knowledgeable about the proliferation of sects, cults, and new religions in the U.S. today. Since the early '60s, Melton and his Institute for the Study of American Religion have studied and archived material about the thousands of groups that Americans have formed in their quest for spiritual fulfillment. Melton himself is a Methodist minister — a self-described evangelical with his own well-defined theological perspective. However, in his scholarly work, which includes several encyclopedic guides to American religions (see review, p. 55) Melton maintains an admirable objectivity.

When Melton came through the Bay Area this fall, Kevin Kelly and I spent a couple of enjoyable hours interviewing him for his observations about new religions, past, present, and future. Here's a distillation of our conversations.

(Another portion of this interview, covering gnosticism, heresy, and mysticism, will appear in Gnosis *#4, a magazine I edit about Western spiritual traditions, available after April 1987 for $5.00 postpaid from P.O. Box 14217, San Francisco, CA 94114.)*

—Jay Kinney

Gordon Melton: I started working in the 1960s, before the modern cult controversy came along, when the only people talking about cults were a handful of Christian scholars and writers. What I set out to do was to survey all the religious groups in America and try to understand where they came from and what was happening. I arrived at the conclusion that a number of different new religious traditions were growing up in America, and we didn't know why. There were all kinds of outlandish theories about cultural changes trying to explain them.

But what really happened in the 1960s that fostered these new religions was a legal change; namely, the Asian immigration laws were rescinded. All of a sudden Asians could enter this country in the same proportion as Europeans. And the same became true of Middle Easterners. But it was the Indian swamis who made the biggest, earliest impact. The first person able to take advantage of the rescission of the Asian Immigration Act in 1965 was Prabhupada, the Hare Krishna founder. He came in on a tourist visa, prior to the Act's rescission. About a month after he got here the Act was rescinded, and he was able to stay. Not only Prabhupada but a number of different religious traditions — Buddhist, Hindu, Sikh, Jain, Sufi — were transferring here, growing, and attracting young adults.

It's mainly young adults who possess the characteristics that allow conversion. They have no vested interest in the society; they're trying to become adults; and they are trying to find a worldview. So they are the people who will tend to convert the easiest in any religion. These were the people being attracted to these groups, and parents didn't like it.

Parents have never liked their kids' converting to an intense religious experience. But because their kids were converting to groups that not only emphasized intense religious experiences, but also served them with a foreign flavor, they really got alarmed. Parents were becoming concerned about their children joining these new groups and short-circuiting their professional careers.

In my professional work I try to avoid the word "cult" because segregating supposedly evil groups doesn't help to see what is going to happen to them, how they will grow or develop. This is not to say that genuinely bad things haven't happened in some groups. For example, one of them, the Children of God, were prostituting their female members. Venereal disease ran rampant through

Stan Creighton/San Francisco Chronicle

Bhaktivendanta Swami Prabhupada, founder of the Hare Krishna, is venerated by his followers.

their community. But bad things have happened everywhere in every religion. We know of ministers of staid denominations molesting children and seducing secretaries. All of the evil things that the cults were known for were happening in mainline churches. Jim Jones's People's Temple was a member of the National Council of Churches. That's about as establishment as you can get in America.

Jay Kinney: Nevertheless, your publishers have saddled you with book titles such as *The Cult Experience* and *Why Cults Succeed Where the Church Fails.*

GM: The word "cult" sells books, that's it, pure and simple. We chose the name for *The Cult Experience* because Bob Moore and I, who co-authored the book, wanted to deal with cult issues, with the issues of the anti-cult movement and cults. We wrote a book on the alternative religious experience in America — it didn't sell half as well as *The Cult Experience.* I didn't pick the title for the other book, *Why Cults Succeed Where the Church Fails.* I didn't like that title. We're dealing with alternative religious traditions, and the text makes that point clear, but the title is on there to sell books.

Kevin Kelly: Nonetheless, would you say there is no such phenomenon as cults?

GM: There's certainly a phenomenon. If you're a Christian, for example, there are groups all around you which no longer profess Christian faith, in various forms. Then there are groups that deviate from that norm. They are still Christian but they've dropped the essentials of Christian orthodoxy. And then there are groups that are not Christian at all. Those with Christian backgrounds call those groups cults. And finally there are groups which are very intense in their experience and authoritarian in their organization, which have been labeled cults by the secular anti-cult movement. As I said, these attract young adults, primarily late teens to early twenties, into an intense conversion experience. So, yes, there is that phenomenon.

KK: There are, in fact, a number of Christian fundamentalist groups that operate the same way. ►

That is, they're guru-oriented, slightly paranoid, and may have a sense of persecution.

GM: Right. To a large extent the feeling of paranoia is there because the groups *are* persecuted. I can remember testifying before one of the government legislative committees, where I said, "Look, folks, I'm a Methodist. And if the Justice Department and the Immigration Bureau, and the local law enforcement officials, were all coming after my church, and if the state decided to do an investigation of the evils of the Methodist church, I wouldn't *feel* persecuted, I'd *be* persecuted."

In fact, some of these groups have been hit pretty hard. Some of them might deserve it, but as a whole they haven't. As they have been persecuted, some of the groups have been pushed into radicalness. It's certainly true of Scientology. Scientology's done things which are illegal, and others which are plainly immoral, but to a great extent they were pushed that way by the kind of action the government was taking against them. It's similar to the action taken against the Peace Movement groups and the feminist groups in the '70s. The same kind of things were being done to the Church of Scientology. They felt helpless dealing with big government. They filed for Freedom of Information material, and people would say such documents don't exist, and then later the documents would turn up. Problems like that tend to radicalize a group. While we can't condone some of the things they did, hearing of those problems helps us to understand the frustration that led them down that path. A more mature leadership would not have followed that path, but that's another problem you get in these groups. They grow fast and suddenly they've got people running large national organizations who are still in their twenties, and they're just not mature enough to know how to make decisions in the real world.

KK: Why were so many of the new alternative religions so intense and radical?

GM: I'm not sure that so many were. There may be three or four hundred different groups that sprung up as a result of Easterners moving here, and they seemed to run the gamut. Some groups were very intense, not just in terms of religion but in terms of organization — that is, they tended to take people's whole lives. I trace the tendency in that direction to two things. Number one is the guru syndrome — or more precisely, the structure of the guru/chela relationship. It's a relationship of submission, where the chela submits to the guru. In some relationships it's a segregated submission, that is, you only submit a little bit. You submit to your guru in matters spiritual, but in no other way. You would not submit to the guru in the matter of whom you marry or what job you take or those kinds of decisions in life. You expect the guru to conform to the social structure; in other words, that he's not going to be making demands on you that put you outside the social structure. And in India that's the case; the gurus are Indians and they understand that social structure. But here problems arise because there is not a common social structure, so sometimes they make commands which don't fit with the chela's social structure.

Number two, at the other end of the gamut, is a nearly monastic tradition coming out of India and Southeast Asia. This life demands everything. The sinyasins in Indian society have a very high status, particularly if they live up to their vows. It's a very accepted part of the culture to have mendicants wandering through the land who live that kind of vow and live off the land. It's not acceptable here. Here they're called bums.

The demands the guru makes which go beyond religious and spiritual matters, demands regarding lifestyle, diet, and relationships, are really the daily practice of religion as opposed to weekly practice, which is what most of us are used to. If you throw that on top of a monastic ideal, you get, for example, the Krishnas where total adherence to a total lifestyle is being asked of people. A total immersion in this monastic, ascetic life. That immersion seems to be where most of the trouble comes in.

You will always have the odd charismatic leader, like Reverend Moon, who wants to develop a very intense following which'll change the world and make real impact in a short lifetime. They have always been around. But when things start to go wrong, people who were never thought of as cult leaders all of a sudden are called Cult Leaders. You know, when Rajneesh came here, he was asking for disaster. He had been kicked out of India, essentially, and he came here and didn't play cool. He could've had everything here, but he chose the wrong leadership to help him, and it went sour. Rajneesh was *not* an intense guru — he only asked a few things of his followers. But because things went sour with his second echelon of leadership, he got labelled a cult leader.

JK: It seems to me that Rajneesh represents the end of a wave. I haven't noticed another Eastern group or guru rising to much fame or public notice since Rajneesh.

GM: You're quite right. For one thing many of these groups are beginning to align themselves with the very respectable Hindu or Islamic communities developing now in America.

Secondly, I think the secular media is bored with gurus. There are so many of them floating around. (And the most successful ones are not well known at all.) When you stop and look at him, Muktananda was as successful a guru as we've had in this country. Muktananda developed a very intense relationship with his disciples and yet escaped most of the notice of the anti-cult media. He established 150 centers, and huge headquarters in upstate New York — a very successful guru. If it hadn't been for the scandals at the end of his life, we would rarely hear of the guy. [Muktananda's story was first published in *CQ* #40, p. 104.]

JK: I went to a meeting of the Siddha yoga group recently (with Swami Chidvillasananda), and the majority of people there were my age, in their 30s. I didn't get the sense they were attracting many twenty-two-year-olds.

GM: It varies around the country. The newer gurus — there are new gurus popping up every year — are still recruiting on college campuses and within those transient communities of young adults who went straight from high school into the workforce.

One of the things that has interested me while visiting the Sai Baba groups has been the amount of white hair I saw. I have never seen a group that has the generational span that the Sai Baba people have. They're effectively recruiting older adults as well as young adults, although the older adults tend to be women. Demographically it's almost that same group that Vedanta recruited in the early part of this century — women in their post-childbearing years. So it really does vary.

But you're right that some of the groups that were very popular ten years ago, like the Divine Light Mission in California, are growing older together. One problem they're going to face is how to deal with the children born to members, and that are now growing up. Child rearing tends to sap your evangelical fervor. When you start putting energy into children, it takes away from recruitment.

KK: As I see it, Reverend Moon's Unification Church disappeared from public sight right after their spectacular mass marriages.

GM: Yes, they married off over half their membership, and they almost went under as result of that. Two months after the marriage their cash flow dropped to nothing. They had a real crisis in September following that July marriage, and that crisis is just now waning seven years later. The other thing, of course, is that the Unification Church lost a lot of members who couldn't cope with that arranged marriage. They had to bring in a lot of Japanese members to replace them. In fact, they brought in a whole planeload of their best Japanese fundraisers.

JK: You mean Korean?

GM: No, Japanese. The main strength of the church is in Japan. They're stronger in Japan than they are in Korea. They work off the Japanese guilt toward the Koreans. That's a major underlying theme for them, and the indemnity theme plays well to Japan.

JK: Something I've noticed regarding the Unification Church is that in some regards they seem to be redefining themselves as respectable.

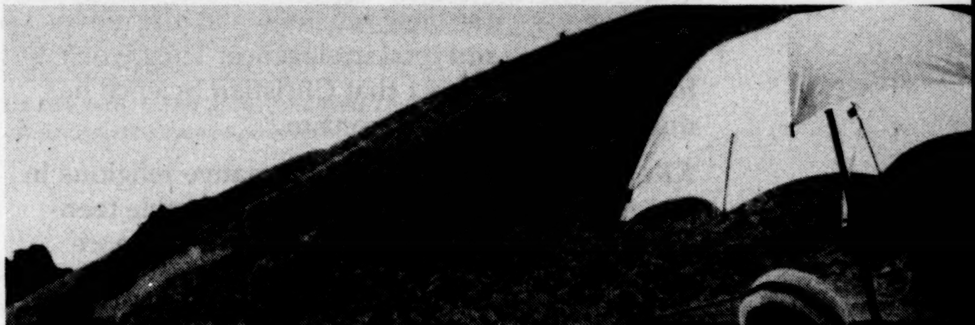
GM: Been tryin' to.

JK: With some success if one identifies the *Washington Times* and their *Insight* magazine as, on some level, Moon publications. They have a conservative, Republican point of view. And they've had some success achieving contacts in the Reagan Administration. Are groups identified as cults being increasingly integrated into American society?

GM: Sure. What we call the cult experience is a one-generation phenomenon. It is the experience of a first generation of intense converts. You know it's not so much opposition to cults that makes them change. It's time.

Over time you can't sustain that intense a lifestyle, unless you go off by yourself somewhere. And the groups we popularly call cults didn't want to do that. They wanted to be involved. Moon wanted to be involved in politics. The Krishnas wanted to be out on the street, even the Church of Armageddon, that little group in Washington state, wanted to be involved at least in social service. So did the Divine Light Mission. Over a period of time, that intensity wore off, the newness of the faith wore off, they fell into routines, and bureaucracies took over.

And then there is the pressure of dealing with children. Their children aren't converts. When they grow up, they're like all other children — some are in, some are out. Moon's Unification Church came here in '59, though most of their converts are early '70s types. They've been around



Chris Stewart/San Francisco Chronicle

The followers of Bhagwan Rajneesh showered him with Rolls Royces, flowers and an aide to hold an umbrella for shade and spiritual purity.

long enough to start families and have babies. The presence and responsibility of those children has been doing more to change the Unification Church than all the legal pressure that's been put on them. Children have an amazing way of doing that.

KK: What happens in the third generation?

GM: One of two things. Either the groups join the consensus, or they become like Christian Science — an accepted eccentricity. Nobody gets upset about Christian Science anymore. There's a Christian Science church on every corner. By the third generation we understand they're not going to do any harm. They're not going to take over, or bloc vote the city out of existence. They're just going to be there and there'll always be a few people filtering through.

KK: They're culturally dead in most ways.

GM: Yes, in a very real sense, they are. They've lost their power to influence things. They still have a role to play — the *Christian Science Monitor* is a fairly important newspaper and with an influential editorial page — but they're just one more of the little blocks that build this huge society that we have. They are no longer as interesting and controversial in the sense that they were in their first and second generation.

Some of the other new religions will just move into complete and total irrelevance. They won't have even the impact that Christian Science has, much less that of Mormonism.

KK: Since the spawning of alternative religions in America coincides with a boom of eligible teenagers, do you see fertile ground now for more new religions?

GM: Yes. Very much so.

KK: More than other countries in the world?

GM: Not really. Africa south of the Sahara has religions numbering in the thousands. We're still in the hundreds here. There are thousands of religious groups in India that haven't made it here yet. There are four or five hundred in Japan., Everywhere there's freedom of religion, even nominally, cults or new religions are springing up all the time. Plus variations on all the old religions will come along.

The other factor producing more religious variety is urbanism. In urban complexes you have a dense enough population to where you can sell a handful of people on almost any idea no matter how farfetched it may seem. Almost every month, a new teacher pops up. Hardly, a week goes by that I don't find a new one. I went to Washington over the Fourth of July, and I found a new guru who had just come in for a visit. He had three or four groups, one in Washington, D.C., one in Bethesda, and one in New York. He was from the same lineage as Yogananda but he was beginning an entirely new organization. And he wasn't here two years ago.

KK: Are we witnessing the fragmentation of the world into many, many minor religions?

GM: Not really, there will still be a Christian America and a Christian Europe. There will still be an Islamic Middle East, and a Jewish Israel, and an Islamic North Africa. There will still be a Buddhist Southeast Asia and a Hindu India. But in the major cities and urban complexes you will get much greater differentiation. Within these urban complexes, anywhere you want to go in the Free World, you will find a multitude of forms of the major religions in strength. This process of differentiation will be more visible in America for the next few decades, because of the changes in those immigration laws, and the resultant massive movement of people and religions into America.

KK: What about the influence of American Christian missionaries going in the opposite direction?

GM: It's very, very strong. The newer fundamentalist and evangelical groups which have emerged in the twentieth century are still very mission-oriented. The older churches are having to live with the success of the last generation. Methodism, for example, of which I am a part, was one of the most successful missionary groups of the nineteenth and early twentieth century. There's now a Methodist church in almost every country of the world. It was so successful that those churches in their third generation developed their own native leadership, and by the middle of the twentieth century they had their own bishops. All of a sudden we Americans discovered that we were an intrusion to them. They said, we don't want missionaries, we need people to help with agriculture and engineering, those kinds of practical things. The Methodist church has had to cope with the fact that there are no more traditional foreign mission fields left.

JK: One activity that seems to be occurring is the phenomenon of evangelical Protestants going into, say, Catholic countries and converting Catholics to their version of Christianity — defining the Catholics as non-Christians according to their viewpoint.

GM: It's a tremendous problem. Anti-Catholicism was a major theme of nineteenth century Protestantism. And today areas of Protestant-Catholic tension remain. Some Protestants define Catholics as non-Christians, while others define them as heretical Christians. Most mainline Protestants would say, "Certainly Catholics are Christian, they're even orthodox Christians, but they're not the standard of the faith. People should have a chance to opt for Protestantism if they really want it, because it's a better form of faith." Others simply opt out: "We're not gonna worry about Catholics." Protestants (i.e. non-Catholic Christians) run the whole gamut. Some liberal Protestants will support work in predominantly Catholic countries, for "let's give the people a choice" reasons.

KK: Is there any precedent for a country that works without a dominant cultural religious matrix?

GM: Well, the Roman Empire worked for a little while without one. Of course it fell apart, and you could say it fell apart because it didn't have that kind of a matrix. No, I think that's a new phenomenon. At the time of the American Revolution, it was literally an unheard-of idea that you could have a country without a state religion. Different countries could have different state religions, but it was assumed that every country had to have one dominant religion. You could tolerate a few sectarians, but this country became the great experiment. The leaders said, "Well, let's try it without one, and make Christianity's lowest common denominator as the community religion, but we'll allow all the different sects to run things." There was an assumption that there would be some state establishments, but eventually even those went by the board, and so we've grown up with a Christian nation, but with no dominant church organization.

The question now before us is essentially the same one this country faced at the time of the Revolution. Must we have a Christian overlay? Or can we give even that up? Because that's where we're heading in the next century. We're going to be a country in which the majority of people are in some sense Christians, but that Christianity will not be visible in the legal structures and in many of the power centers of the country.

Right now the justices are articulating the fact that the government doesn't know heresy, therefore you can't persecute people for their religious ideas. That's been relatively easy up to now, because on the whole you were dealing with variations in the Christian community — making a place for Jews and a place for atheists. Now we've got to make a place for everybody. That's a much tougher job.

KK: Will the word "cult" disappear? Or the notion of a cult?

GM: I have a feeling that to a certain extent it's going to. It is a term that has little meaning in a pluralistic culture.

JK: There has been quite a bit of publicity recently about radical right-wing groups, a number of whom coalesced around Christian Identity, a sect that seems on the fringe of the fringe.

GM: Identity grew up in the nineteenth century during the development of the British Empire. This idea states that the ten lost tribes of Israel were in fact the Anglo-Saxon people. The word "identity" comes from the professors of this belief who "identify" modern Anglo-Saxons as ancient Israelites, hence the Old Testament prophecies to Israel apply to them. The United States and Great Britain, in particular, play a key role in those prophecies. It's an idea that's been around since the middle of the last century, and it had its heyday in Britain, at the height of the Commonwealth. As the Empire began to disintegrate, it lost much of its popularity. It gained great popularity in the United States after World War I. Around World War II it got tied up with the Klan, Gerald L. K. Smith and Wesley Swift — that bunch — and took in a very radical hate element. In the late '70s it enjoyed a new life, when the nation went through a national religious revival. At that time its adherents aligned themselves with both the American Nazi Party, and its several factions, and the Klan and its several factions. One of the major groups in Louisiana has the same box number as the local Klan group. Write that box number, and you get Identity material, write the same box number, you get Klan material.

Laughing Man Institute

Da Free John, leader of the Johannine Daist Community, holds an audience with a second-generation member.

The group's been very violent, primarily with its rhetoric, but some individuals and one or two of the groups have been violent with their actions. In the Midwest it got tied up with the Posse Comitatus and the radical farm movement and the anti-tax movement, so that a lot of violence emerged.

JK: Will groups establish a religious basis, or a supposedly religious basis, by being specifically against some other religion?

GM: Certainly we'll have groups come along whose major basis is fighting another group, but they will not survive. I think it's one of the reasons organized atheism has never made it in this coun-

Bettmann Newsphotos

Over 1,800 couples, matched personally by Rev. Sun Myung Moon, gather for a mass wedding ceremony at Changchung Gym in Seoul, Korea, in 1975.

try as a viable community. When atheists get together, they spend more of their time preaching against religion than they do promoting their own positive ideas and causes. There will always be groups who use various forms of chauvinism to oppose other groups, who denigrate other groups, but if they survive that will not be their major theme.

KK: What other new forms of religion have been popping up with signs of staying power? We recently did an issue of this magazine (*WER* #52) on eccentric science — looking at the edges as a way of seeing where the middle's going — in which there was some material on the Church of the Subgenius, the Super Rationale church in Brazil, UFO contactees awaiting the saucers, and that sort of thing. Is there a new kind of religion coming from somewhere in that mix?

GM: Contactees have been with us since the '50s, and in spite of the ups and downs of the UFO movement, the contactee movement has continued. Now there's a new wave of contactees, many emerging as leaders in the New Age channeling movement. One of the most popular is the trance medium Ramtha. I've recently watched the first of the Ramtha videotapes and what impressed me most was the audience — young smiling faces who've never seen trance mediumship. They were really turned on by the phenomenon of seeing a good trance medium.

Well, I've seen trance mediums for twenty years; she's just another trance medium — a pretty good one, but just another somewhat boring example. There's a generation coming along who haven't experienced mediumship, and they're seeing it for the first time. I think it will grow for a while and some of them — Ramtha is probably one, Lazarus another — will establish organizations that will be with us for a generation or more.

KK: So we might see churches grow up around channeling.

GM: They've already formed a church around Ramtha (the Church I Am). Channeling is basically a religious phenomenon, and if channels are successful, that's the way they'll go.

KK: If you were going to make up a leaflet detailing the steps to follow in making your own successful religion, what would it say?

GM: First, contrary to popular opinion, have a genuine religious base yourself. If you've got that, you will draw people to you. The next crucial decision then becomes, who do you pick as your lieutenants as you grow? Stupid, psychotic, unprincipled lieutenants have killed many otherwise good religious organizations. Then to survive as a religion generation after generation, you have to develop a positive program and a positive world view. You've got to feed people spiritually, and teach them piety. There has to be a genuine religious fervor and feeling, or your religion dies. When serious life crises occur (and we all go through serious crises every decade on a personal level), if the resources aren't there to help you, you go find them where they are. ■

ACCESS TO CULTS

The Encyclopedia of American Religions • Biographical Dictionary of American Cult and Sect Leaders • Encyclopedic Handbook of Cults in America

The golden age of encyclopedists wrestling the world's knowledge into book form is usually associated with eighteenth-century Frenchmen like Diderot or Voltaire. However, in the specialized universe of religious research, such a golden age may still be with us. Certainly, J. Gordon Melton's efforts to track down and describe every religious group in modern America (ranging from major denominations down to eccentric grouplets) stands out as an unparalleled undertaking, and the results have been outstanding.

Every public library should have a copy of Melton's **Encyclopedia of American Religions**. *Herein one finds succinct summaries of the distinguishing doctrines and histories of hundreds of churches ranging from the Holy Ukrainian Autocephalous Orthodox Church in Exile to the Fire Baptized Holiness Church (Wesleyan). And that's just in the volume on Christian denominations. An additional 600-page volume covers everyone else from the Urantia Foundation and Lectorium Rosicrucianum to the Vedanta Society and a dozen Shinto sects. Melton's descriptions are generally accurate and evenhanded — an all-too-rare occurrence in books purporting to describe a variety of faiths.*

Less sweeping in scope, but similarly useful, are Melton's **Biographical Dictionary of American Cult and Sect Leaders** *and his* **Encyclopedic Handbook of Cults in America**. *The* **Biographical Dictionary**'*s strength is its inclusion of spiritual leaders located abroad, such as Ramakrishna or Meher Baba, as long as their followers have had organizations in the U.S. The book's biggest drawback is Melton's decision to only include people who died prior to January 1, 1983. Thus L. Ron Hubbard, Rev. Moon, and Rajneesh, to name a few, are regrettably missing. As with the* **Encyclopedia**, *the information here is accurate and makes for fascinating reading. It is easy to dive into these books to look up one group or leader and end up reading a half-dozen adjoining write-ups out of sheer fascination.*

The **Encyclopedic Handbook** *zeroes in on about two dozen of the most prominent alternative religions and treats them in more depth, including descriptions of the controversies that have swirled around most of them. Also present are descriptions of "counter-cult groups" and a discussion of the mixed meanings of the term "cult" itself. A valuable, balanced book.* —*Jay Kinney*

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Hineni Ministries (Jews for Jesus). From the beginning of Christianity, when it functioned as a "Way" within Judaism, Jews have been an object of conversionist attempts. Some efforts, such as those of the Inquisition in Spain, would not win any approbation in today's world but are symbolic of the continuing problem that Christians perceived in the existence of a Jewish community. Many converts from Judaism made substantial contributions to the Christian church. A revived Jewish mission was begun in London in 1809 and spread to the United States seven years later. Though it has had its ups and downs, it continues to be supported, primarily by conservative Protestants.

While most Hebrew-Christian groups remain at least informally attached to mainline Christian congregations, with the interface of the highly evangelistic Jesus People movement of the 1970's and the traditional Hebrew-Christian movement, a new perspective arose — the messianic Jews. Messianic Jews by birth are Jews and remain self-consciously Jewish, while accepting Jesus as their promised messiah. While becoming Christians in faith, they continue to follow the traditions, customs, and culture of Judaism. As the movement has grown, messianic synagogues have appeared wherever concentrations of Jews reside.

Most prominent of the messianic Jewish groups are the Jews for Jesus, founded by Moishe Rosen, a former worker for the American Board of Missions to the Jews, one of the oldest and largest of the Jewish mission groups. In 1970, Rosen moved to Corte Madera, California, to work among the hippies in the San Francisco Bay area. From that effort, the national movement emerged. Popularly called Jews for Jesus, they incorporated in 1973 as the Hineni Ministries, Hineni being a Hebrew word meaning "Here am I."

The Jews for Jesus have become a major issue within the Jewish community. Though they consider themselves Jews, the larger community has tended to reject them and consider them subversive and destructive of Hebrew heritage and culture. By 1975, an estimated 10,000 Jews for Jesus were to be found across the country. In various communities, they support both messianic synagogues and mainline Christian churches.

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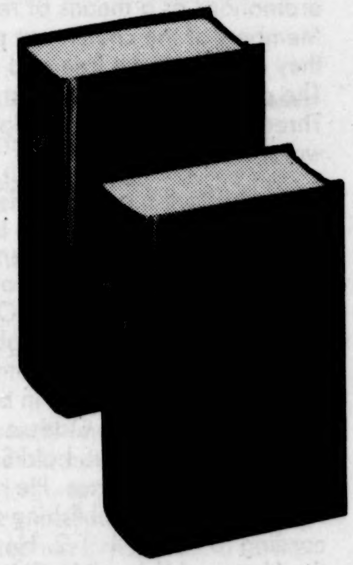
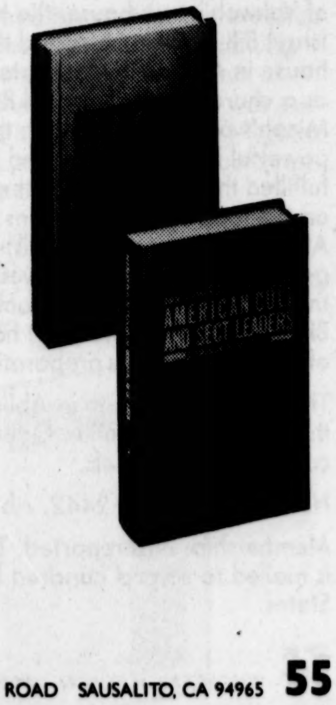
American Vegan Society. The American Vegan Society was founded in 1960 at Malaga, New Jersey, by H. Jay Dinshah and his wife, Freya. The basis of the Society is ahimsa, defined as "dynamic harmlessness." The six pillars of ahimsa (one for each letter) are abstinence from all animal products, particularly for food or clothing;



The Encyclopedia of American Religions
J. Gordon Melton
1978; 1,380 pp.
(2 vols. plus 1985 supplement)
$165
postpaid from:
Gale Research Company
Book Tower
Detroit, MI 48226

Biographical Dictionary of American Cult and Sect Leaders
J. Gordon Melton
1986; 354 pp.
$39.95
postpaid from:
Garland Publishing, Inc.
136 Madison Avenue
New York, NY 10016
or Whole Earth Access



Encyclopedic Handbook of Cults in America
J. Gordon Melton
1986; 272 pp.
$24.95
postpaid from:
Garland Publishing
136 Madison Avenue
New York, NY 10016

harmlessness and reverence for life; integrity of thought, word and deed; mastery over oneself; service to mankind, nature and creation; and advancement of understanding and truth. Veganism is conceived as an advanced and comprehensive program for living and draws its inspiration from Gandhi, Albert Schweitzer and the father of the founder. Vegans are vegetarians, are ecology oriented, oppose abortion, smoking and drugs, and practice karma yoga. Karma (work) yoga is an action path to perfection — doing good and avoiding harm. Meditation is discouraged.

Headquarters for the society are at Suncrest, run as a teaching hotel, at Malaga. A summer program is conducted during the summer attended by Vegans from across the country. An active lecture program is carried on by the Dinshahs. An annual convention is held in May. *Ahimsa* is a bimonthly periodical.

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Church of Universal Brotherhood. The Church of Universal Brotherhood offers for $10.00 a kit which includes an ordination certificate, a Doctor of Divinity certificate and complete instructions on forming your own church. The church was founded by Michael Valentine of Hollywood, California, with the purpose of helping people become aware that they are in charge of their own beliefs. The church admonishes members to love themselves, love their brothers and sisters as they do themselves, and take control of their lives as they see fit. Their church believes that all is one. The goals of life are best attained, according to the church, by getting high and staying there, raising the vibes, cherishing the world and praising God for his grace.

Freedom is a keynote with the church, which encourages ordinations as a means of releasing power for good. Members of the church say people are in prison, but they deserve to be free and must get the necessary help. The prime virtue is the constant striving for self-mastery. Three tools available to help the seeker are mirrors, water beds and hypnosis.

—*The Encyclopedia of American Religions*

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The House of Yahweh (Abilene, Texas)
Among the people with whom Jacob Hawkins, founder of the House of Yahweh in Odessa, Texas, communicated his discovery of the true organization of the Called Out Ones of "Yah" was his brother Bill. Israyl Bill Hawkins joined his brother Jacob in building the sanctuary of the House of Yahweh in Odessa. However, in 1980, Israyl Bill Hawkins began to hold Sabbath services in his mobile home in Abilene, Texas. He had become convinced of the necessity of establishing the House of Yahweh according to Micah 4: 1-2. He taught that the formation of the House of Yahweh in Odessa by his brother was but the initial stirring by Yahweh that led to the establishment of Yahweh's true house, the House of Yahweh in Abilene. Israyl Bill Hawkins asserted that the chartering of his house in Abilene by the state of Texas and its recognition as a church by the Internal Revenue Service fulfilled Micah's prophecy. Through the IRS, the United States, a powerful nation, recognized the House of Yahweh and fulfilled the prophecy that the house would be established on the tops of the mountains (i.e., nations. Micah 4: 1-2). Also, the house was established in Abilene, a place of gathering at a point due west of Jerusalem, to prepare the world for the second coming of Yahshua, just as the Biblical Abilene (Luke 3: 1) had been the starting point of John the Baptist's preparation of Yashuah's first coming.

The House of Yahweh in Abilene is organized similarly to the House of Yahweh in Odessa, with which it shares a common set of beliefs.

Headquarters: Box 2442, Abilene, Texas 79604.

Membership: Not reported. The bimonthly periodical is mailed to several hundred believers around the United States.

Periodical: The Prophetic Word, Box 2442, Abilene, Texas 79604.

Sources:
Yahweh's Passover and Yahweh's Memorial. Abilene, Tex.: House of Yahweh, n.d.

—*The Encyclopedia of American Religions*

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Nichiren Shoshu Academy, Soka Gakkai
Nichiren Shoshu Academy is the official name of the Nichiren Shoshu religion and its lay organization Soka Gakkai, the most successful of the several groups which have grown out of the work of Buddhist teacher Nichiren Daishonin. Three of the Nichiren groups can be found in the United States, and two are confined to Hawaii.

Until after World War II, Nichiren Shoshu was merely one relatively small Buddhist group among many. However, with the coming of religious freedom, through the efforts of its lay organization the Soka Gakkai, it experienced a phenomenal growth.

Nichiren Daishonin (the Great Holy One) (1222-1282) was a Japanese Buddhist reformer who according to his followers fulfilled the prophecy that humanity would be redeemed by a greater Buddha than Sakyamuni. After Nichiren's death, this tomb was left in the care of six senior disciples who rotated responsibility for the upkeep of the tomb. However, one of the priests took permanent control of the tomb. In reaction, Nikko Shonin left Mt. Minobu (where the tomb is located), and established a temple, Taiseki-ji, at the foot of Mt. Fuji. Mikko Shonin is recognized as the founder of Nichiren Shoshu. . . .

[Tsunesaburo] Makiguchi, an elementary school principal, was converted to Nichiren Shoshu in 1928. An enthusiastic convert, he began writing a series of books on education and values. In 1937 at the ceremony establishing Soka Gakkai in Tokyo, Makiguchi was elected president. Unfortunately, the new society ran counter to the policies of the increasingly militaristic Japanese government. The Nichiren Shoshu refused to unite with other Nichiren sects, and Makiguchi defied government orders to place a Shinto shrine in every home. In 1943 he and Toda were among a group of Nichiren Shoshu leaders arrested. Makiguchi died in prison.

Josei Toda immediately moved to rebuild Soka Gakkai after the War. He shortened the name and broadened the program from the educational field and saw its purpose as bringing peace and happiness to all. In 1951 he assumed the presidency of the revived movement. In his inaugural address he urged an aggressive proselytizing campaign. His announced goal was 750,000 members in seven years. Shortly after that goal was attained, Toda died. —*Encyclopedic Handbook of Cults in America*

●

RUSSELL, Charles Taze (February 16, 1852, Pittsburgh, Pennsylvania — October 31, 1916, Pampa, Texas); married Maria Frances Ackley, 1879 (legally separated, 1906).

Charles Taze Russell, founder of the Watch Tower Bible and Tract Society, was nine when his mother died and was raised a Presbyterian by his father, who was a businessman. In his youth he rejected his Presbyterian training and spent a time in complete unbelief. Charles also seemed destined for a prosperous business career; by the age of fifteen, he was in partnership with his father retailing men's clothes. His career was interrupted by his attendance at some meetings conducted by Adventist Jonas Wendall, and by his acceptance of the belief that the world's end was near and that Christ would come in 1874. In 1868 Russell formed his own Bible study group to explore Scripture in the light of Wendall's teaching.

Over the next decade, working with this group and reading other Adventists, Russell developed his own views: that hell meant annihilation not eternal torment; that humanity had been ransomed from death not eternal hell; that there was no biblical basis for the Trinity;

and that Christ did return in 1874, but as an invisible presence. in 1876 he made contact with Nelson H. Barbour, an Adventist and editor of *The Herald of the Morning*, who shared his views on the 1874 date. Russell became co-editor of *The Herald*, and his Bible study group aligned itself with Barbour's in Rochester, New York.

—Biographical Dictionary of American Cult and Sect Leaders

•

KELPIUS, Johannes (1673, Halwegen, Transylvania — February [?] 1708, Germantown, Pennsylvania); education: University of Tubingen; University of Altdorf, Ph.D., 1689.

Johannes Kelpius was the leader of the Chapter of Perfection (aka, the Society of Woman in the Wilderness), the first occult body in what is now the United States. Although orphaned in childhood, he received a fine education. His dissertation, written at the age of sixteen, was a treatise on natural theology, which was published and went through several editions. Shortly after graduation he coauthored a treatise on theology with his former instructor, Johannes Fabricius, and then wrote a volume on the ethics of Aristotle. His books attracted the attention of mathematician and astronomer Johann Jacob Zimmerman, who combined an interest in science, astrology, theology, and alchemy — all at a time in which the exploration of the occult arts and orthodox theology could co-exist. Zimmerman joined several mystic fraternities and led Kelpius into an association with the mystical pietist movement, which had attracted some disfavor because pietists tended to remain aloof from the formal activities of the state church. . . .

Departing from Germany in the summer of 1693, the group arrived in Pennsylvania on June 23, 1694, after stops in Holland and England. The day after their arrival, Kelpius led the group in the celebration of St. John's Eve, the surviving Sonnenweld-feuer of Norse Paganism, marking the beginning of the waning of the sun's power after midsummer.

Kelpius saw to two immediate needs. First, he secured land in Wissahickon Creek in Germantown to settle his small band, and, second, he initiated a program for the education of the local children who were without a school. Locally referred to as the Woman in the Wilderness (a reference to Revelation 12:14-17), the chapter constructed a cubic building forty (a perfect number) feet on each side, with an astronomical observatory on the roof.

Kelpius, in accordance with the chapter ideals, practiced celibacy and thus never married. He was of frail constitution and in the rugged environment developed tuberculosis. He had little concern for death, however, because he believed that he would live to see the Second Coming of Christ, at which time he would be translated into a new body. . . .

Kelpius's tuberculosis kept him in bed an increasing amount of time during his last years. In the winter of 1706-07, while convalescing, he composed possibly his last literary work, a twenty-five-stanza hymn, "A Loving Moan of the Disconsolate Soul in the Morning Dawn." He died at the age of thirty-five early in 1708. He was succeeded by Conrad Matthai, a Swiss convert, but the group was already disintegrating and soon fell apart completely. Its only remains are the hexmeisters, who still live in eastern Pennsylvania and practice a folk-magic system passed on by individuals who at one time lived in the quarter.

—Biographical Dictionary of American Cult and Sect Leaders

Cult Awareness Network News

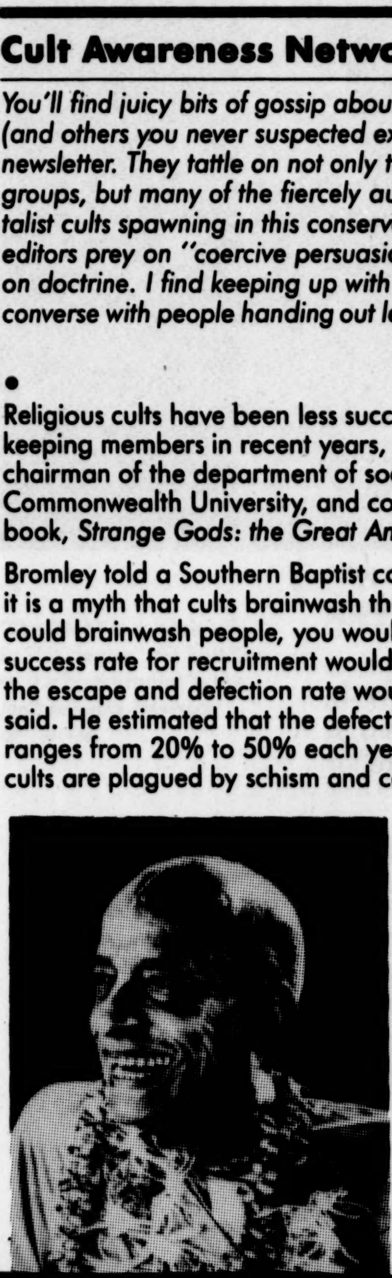
You'll find juicy bits of gossip about your favorite cult (and others you never suspected existed) in this earnest newsletter. They tattle on not only the Eastern New Age groups, but many of the fiercely authoritarian Fundamentalist cults spawning in this conservative climate. The editors prey on "coercive persuasion tactics" rather than on doctrine. I find keeping up with this news helps me converse with people handing out leaflets on street corners.

—Kevin Kelly

•

Religious cults have been less successful in recruiting and keeping members in recent years, says David Bromley, chairman of the department of sociology at Virginia Commonwealth University, and coauthor of the 1981 book, *Strange Gods: the Great American Cult Scare*.

Bromley told a Southern Baptist conference in May that it is a myth that cults brainwash their converts. "If they could brainwash people, you would assume that their success rate for recruitment would be very high, and . . . the escape and defection rate would be very low," he said. He estimated that the defection rate among cults ranges from 20% to 50% each year, and said that most cults are plagued by schism and conflict.



Hare Krishna founder A. C. Bhaktivedanta Swami Prabhupada. From the Hare Krishna publication "On Chanting Hare Krsna."

Bromley warned against efforts to legalize deprogramming, the forcible removal of members of cults to try to get them to repudiate their beliefs. He said that such laws, if passed, could be used against Baptists and other established religions, and are dangerous to society.

•

A Hare Krishna member from Ohio has been charged with the contract murder of a former member who was a vociferous critic of the sect.

Thomas Drescher, 37, was already under arrest in Ohio since May 27 for the murder of Charles Saint Denis, also associated with the Krishnas. In June the Los Angeles County district attorney's office filed a murder complaint against him in the death of Stephen Bryant, 33, a former resident of the Krishnas' New Vrindaban community in West Virginia, who was found shot to death in West L.A. on May 22. Bryant, who blamed the sect for the breakup of his marriage, had distributed pamphlets questioning the authority of Krishna leaders and accusing them of prostitution, drug use, and other illegal acts. He was out on bail pending appeal of his conviction in West Virginia for carrying a concealed weapon. Authorities would not speculate on who might have ordered his death.

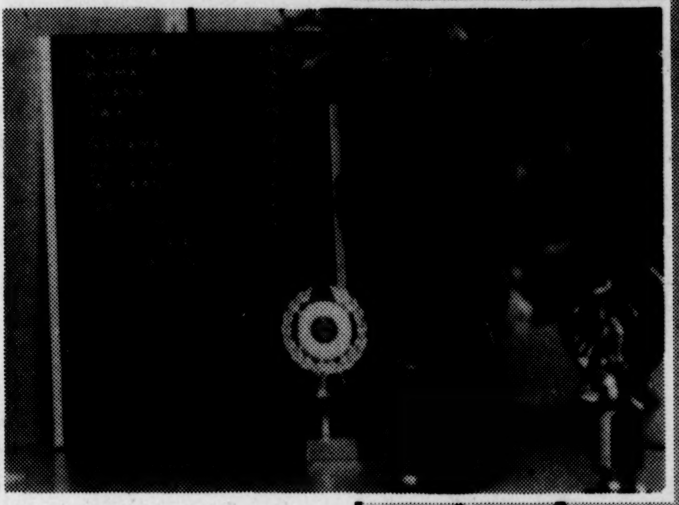
[Stephen Bryant called me to vent his complaints about the Hare Krishnas. I suggested he write them down and send them to WER, but I never received anything. Bryant was killed several months later. —KK]

Cult Awareness Network News
Reginald M. Alev, Editor
$5/year
(12 issues) from:
Cult Awareness Network
P. O. Box 608370
Chicago, IL 60626

Institutional Tolerance of Marijuana in Holland

Quasi-legal soft drugs reduce hard drug crime

by Gerard Holthuis



Gerard Holthuis

List of refreshments in a drug bar; the first four items are varieties of hashish.

YOU CAN BUY MARIJUANA AND HASHISH — "soft drugs" we call them — in the youth centers and coffee bars in Holland. Since 1976, possession of under 30 grams of soft drugs for personal use is the same kind of offense as a parking ticket. But 99 percent of the time you don't get even that. The police just look the other way.

In Holland, we have youth centers subsidized by the city governments. The youth center here in The Hague is called the Wars of Troy. From Wednesday through Sunday, maybe a thousand people go there every night. They have a large space and live music, and there's a tea-and-coffee bar in one corner. You can take courses there: zen meditation, yoga, silk-screening, photography, video.

About five years ago, speed and heroin started to show up at the youth center, then cocaine. The atmosphere got really rotten and criminal. It was a serious problem for the city, so the head of the youth center decided to authorize one or two staff people to be "house dealers." House dealers sell only soft drugs, and anyone selling hard drugs was kicked out.

With this change, the center works again. There's no more violence or stealing. You can have beer or wine or a smoke; it's a good atmosphere. And the city's crime rate went back down. Other cities in Holland had similar experiences. The youth centers have shown that allowing soft drugs makes it easier to keep out heroin.

When the youth centers started selling soft drugs, and the police didn't interfere, some coffee shops and small cafes began to sell them, too. Now there are 50 to 75 such shops in The Hague. Most of them are cafes that originally sold only wine and beer; now their business is based on the sale of hashish and marijuana.

About half these places are run by young people — long-hairs, hippies you might call them. Other places cater to people from Surinam, people who like reggae music, Rastafarians. These cafes start when there are 20 or 30 such people in a neighborhood and someone gets a space so they have somewhere to hang out, and so they can buy hashish and marijuana in bigger quantities in order to smoke cheaply.

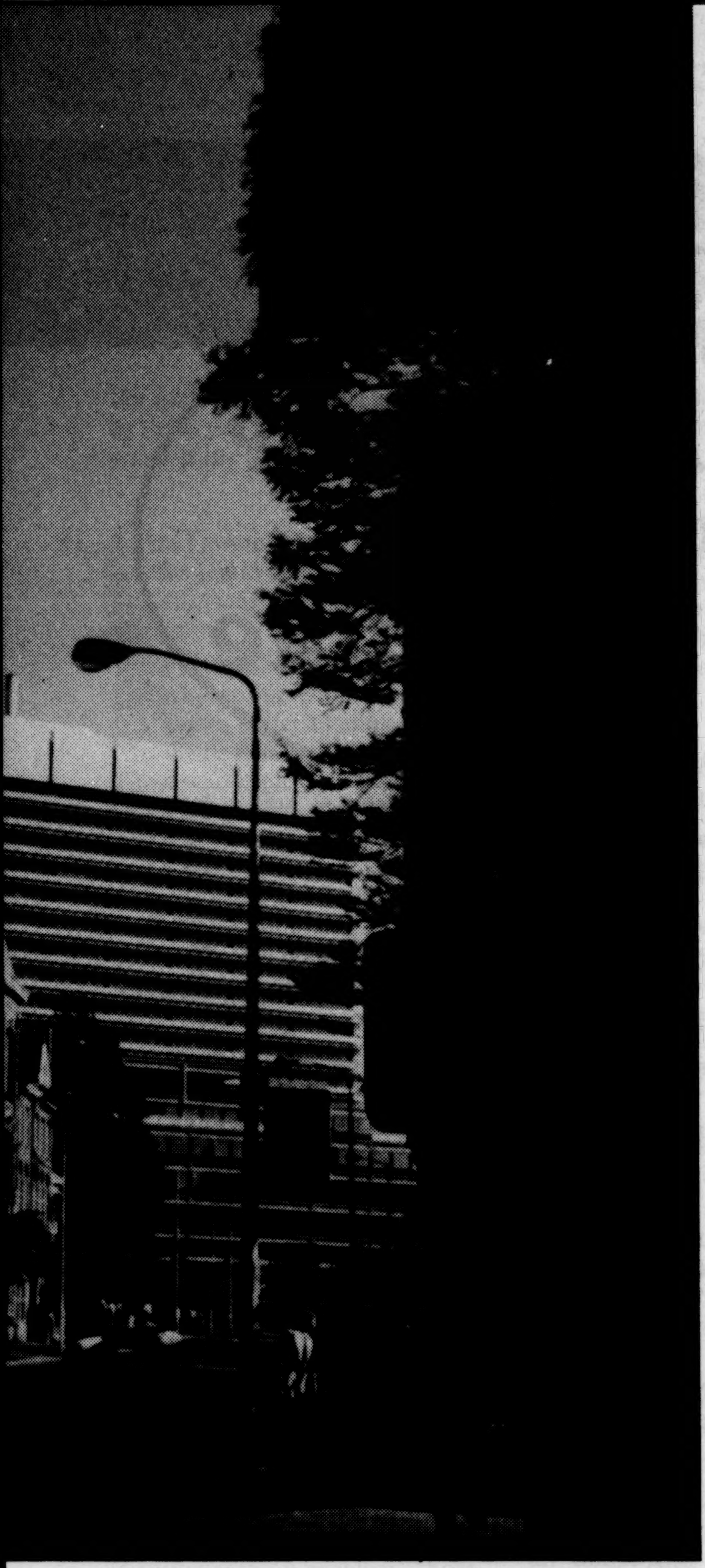
These neighborhood places got very popular, and another type of place appeared: trendy shops, with modern decor and neon and kinky music, where the drugs are displayed in beautiful packages. They make selling soft drugs more of a business. These shops are for more affluent people.

There was a boom in all these types of shops one or two years ago. It seems to be stabilizing now. There are only so many people who smoke — maybe not even enough to keep all the shops going.

Few people have started to smoke just because soft drugs are easy to obtain. There were people using soft drugs already, and now they can do it in a noncriminal way. So you might say demand is limited, and adequate supply drives the price down. Economics is controlling it now, so I don't think sales will increase. The money incentive is much less than it was when weed was scarce.

Gerard Holthuis is a Dutch filmmaker affiliated with the production company known as "Meatball" (official name: Stichting Werkgroep Video).

—Robert Horvitz



"Sky High" is a hash cafe in The Hague. The building in the background is the Netherlands Ministry of Justice.

The cafe I usually go to is about 100 meters from my home. It's on a street with small shops and two places that sell hashish. I go to one run by three young people, a girl and two guys, all about 20 years old. It's decorated in a typical late-'60s psychedelic way, with posters and paintings on the walls. There's a pinball machine. They serve coffee and 50 different kinds of tea. If you want to buy soft drugs, you ask the woman at the counter, and she gives you a menu. It has small samples mounted on a board with labels and prices. Most of the time, they have at least ten different types of hashish and marijuana. You ask, how's this kind? Is that one okay? They make a recommendation, or you just choose something, and they go back to the kitchen and get it for you.

Most places don't have soft drugs on open display. You have to ask for them. A typical buy might be four or five grams of Nigerian marijuana for 25 guilders (about $11).

As soft drug shops became popular, other people began selling hash pipes and paraphernalia in shops reminiscent of the '60s. A magazine called *BrainWaves* has articles about drugs and advertisements for all the cafes. I saw one ad for a place in Rotterdam where you can telephone an order for 25 or 50 guilders' worth of hash or weed, and a courier brings it to your home within half an hour.

The cafes have more than 30 grams in their stash, and whoever supplies them must (obviously) have even bigger quantities. Ninety-nine percent of the hashish and marijuana sold in Holland is brought from outside the country. Some people try to grow hemp in their gardens, but the taste and quality are poor — the Dutch climate is too wet and cold. Since there's almost no native weed, the government could cut the supply if they wanted. They don't officially permit or encourage bringing a thousand kilos of hashish across the border, but they tolerate the way it's sold now because they don't think soft drugs are dangerous. The police mainly try to suppress heroin. But they keep an eye on everything. They know who runs the cafes and what's going on there. If someone starts selling speed or heroin or coke, then they crack down.

The governments of Belgium, France, Germany, Sweden and Denmark still follow the "stepping-stone" theory that one drug leads to another. They put all drugs, hard and soft, on a criminal level. If you are convicted of possession in Germany, you get three or four years in jail, even if it's only one gram of marijuana.

Other countries are angry that Holland tolerates soft drugs. But the Dutch government won't change its policy because it seems to be working. There's still a heroin problem, especially in Amsterdam, but in general, the situation is much better than it was five years ago.

Holland believes that smoking pot is no more harmful than drinking beer. We view drugs as a social problem, so we look for social solutions. People use heroin, for instance, because their lives are bad: they have no work, poor housing, etc. Countries like Germany are less interested in causes. If you use drugs, you're a criminal, and that's that. The Dutch try to separate drug use from criminal behavior. Other countries look at these two things as one and the same.

By allowing the sale and use of marijuana and hashish, the police reduce crime and the consumption of hard drugs. Our delegate to the European Parliament, Bram Vanderlek, says the policy is a success. He says drug use is decreasing in Holland, and the crime rate is down because less money is needed to buy drugs. I don't expect the policy to change, regardless of what other countries think, because it's working and the Dutch people support it. ■

HOW TO STAY IN RIGHT RELATIONSHIP WITH EVERYTHING FROM *Chocolate* TO *Cocaine*

by Jed Diamond

PEOPLE IN THIS COUNTRY USE OR EXPERIMENT with a variety of drugs, including alcohol, cocaine, marijuana, and heroin. We use substances not always thought of as drugs, such as coffee, sugar, cigarettes, and chocolate. We get other drugs from physicians for use as medications, including Valium, codeine, and Seconal. All these substances are "mind-active drugs."

Nicotine, in the form of cigarettes, is probably the most addictive drug we know, yet it continues to be advertised widely and is still used by over a third of the population. Caffeine, in coffee, tea, chocolate, and soft drinks, is the most widely used stimulant and is often abused. But since it is not viewed as a drug, problems go unnoticed.

With so much confusion and misinformation about drugs, it is difficult for the individual to decide how to relate to them. More than 95 percent of us use some mind-active drug, and studies indicate that as many as half of us have some problem with the drugs we use.

For most of us, the issue isn't whether to use drugs, but which ones to use and how to remain in good relationship with the drugs we do use.

Most of us wait until we are having a crisis before exploring our relationships with drugs. The purpose of this questionnaire is to help you decide for yourself if you are in good relationship with the drugs in your life *before* you begin to have problems.

* * *

Before reading, pick up a pencil. If you are so inclined, you can assist the author by sending him your responses. A certified alcoholism and drug-abuse counselor, Jed Diamond is investigating the profile that drug relationships take within a given individual. He also solicits comments about the questionnaire. Send them to Jed Diamond, P. O. Box 9355, San Rafael, CA 94912.

—Kevin Kelly

First, ask yourself which of the following drugs you use:

1. Stimulants:
coffee, nicotine, refined sugar, cocaine, amphetamines

2. Depressants:
alcohol, barbiturates (i.e. sleeping pills), tranquilizers (i.e. Valium, Librium, Dalmane), narcotics (i.e. codeine, morphine, heroin)

3. Psychedelics
(LSD, mushrooms, MDA)

4. Marijuana

5. Prescription drugs
not commonly thought to be psychoactive (i.e. antihistamines, steroids, cough suppressants)

6. Over-the-counter preparations
not commonly thought to be psychoactive (cold remedies, decongestants, appetite suppressants)

Whether a given drug is legal or illegal, approved or disapproved, obtained from a physician or bought on the street, some people can use it with good results while others have problems.

For each drug you presently use or think you may use again, ask yourself the following questions:

1. Am I aware that ______ is a drug, and do I know what the effects are on my body, mind, and spirit?

☐ YES ☐ NO People who remain in good relationship with a drug have a deep understanding of what the drug is and what it does. Those who begin to have problems lack such awareness. They think coffee is just a beverage, smoking just a bad habit, marijuana only a simple herb, and cocaine a safe drug if snorted.

2. Am I experiencing useful effects of ______ over time?

☐ YES ☐ NO People who have the best relationship with a drug get continued positive effects over time with the same amount of the drug. People in the worst relationship with a drug often use it heavily but get the least out of it.

3. When I use ______, do I always use the amount I want and no more?

☐ YES ☐ NO People in good relationship almost always use just the amount they want. If they decide to have two drinks and no more, they stick to the decision without problem. Those beginning to have bad relationships often go beyond their decided limit.

4. When I find I'm not getting the effects I want, do I take a break from using ______?

☐ YES ☐ NO People in good relationship with a drug realize that too much of a good thing can be bad. If they aren't getting the effects they want, they stop for a while. Those who begin to have problems tend to use more of the drug, more frequently, in an attempt to regain the lost pleasure.

5. Do I find it easy to stop using ______ whenever I want?

☐ YES ☐ NO People in good relationship with a drug can take it or leave it. They find that they frequently leave it, even when the drug is readily available. Those in bad relationship have trouble stopping when they want and have great difficulty turning down the drug when it is offered.

6. When I'm not using ______, do I feel comfortable?

☐ YES ☐ NO When we're in good relationship, we naturally have periods when we don't use the drug and feel fine. People who begin to have bad relationships notice that they have to make a conscious effort to cut back and are often uncomfortable when they're not using.

7. Are my family and friends in good relationship with ______?

☐ YES ☐ NO Those with one or more family members or friends who have had problems are much more likely to have problems themselves.

8. Do those who know me well think I am in good relationship with the ______ that I use?

☐ YES ☐ NO Those who are in good relationship are never questioned about their drug use. People who are beginning to get into trouble may hear it first from others. "Maybe you ought to slow down," or similar comments, may indicate that others are beginning to see a problem developing.

9. Do I have rules about when and when not to use ______?

☐ YES ☐ NO Those in good relationship rarely think consciously about when to use. They have a "body sense" of what's right for them. When they do think consciously about it, they easily follow their own rules. Those beginning to have bad relationships have lost their inner controls and find it difficult to consistently follow their own rules.

10. Am I open and comfortable with others about my use of ______?

☐ YES ☐ NO People in good relationship with drugs are quite open and comfortable with others when they are using. Those beginning to have problems feel uncomfortable about letting others see how much or how often they use. They begin to hide the truth.

11. Do I often celebrate good times and deal with bad times without ______?

☐ YES ☐ NO Although celebrations can be times for using a drug, people in good relationship often celebrate without it. When they're anxious, depressed, or lonely, they may talk it out, meditate, or run. Those beginning to get into bad relationship find that good times and bad times are most often associated with the use of the drug.

12. Am I free from adverse effects on my health and well-being?

☐ YES ☐ NO People in good relationship with drugs rarely, if ever, experience damage to their physical, psychological, social, or spiritual health and well-being. Those in bad relationship begin to notice adverse effects, but find that they continue to use despite these effects.

If you honestly answered "yes" to the 12 questions listed, you are probably in good relationship with drugs. If you answered "no" to one or more questions, you might want to talk with an expert about your relationship. Since relationships often change over time, you may want to answer the questions again in six months. ■

POT MOVES

by Ed Rosenthal

Immature buds on a high-yield strain of indoor cannabis.

IN THE LATE 1970s word reached the San Francisco Bay Area of a new strain of *Cannabis indica* being grown in the Pacific Northwest. When the "Afghani" from Seattle reached the Bay Area's shelves, it fetched nearly twice the price then being paid for *sativa* varieties grown on California's sunny slopes.

There was no mystery to the price differential. The *indicas,* like Afghani, have been cultivated for thousands of years for the chemical tetrahydrocannabinol (THC). Those millennia of cultural selection have produced a cannabis genotype with an extremely high percentage of THC. The *sativas,* on the other hand, have traditionally been cultivated for hemp fiber and consequently contain a smaller percentage of THC. Since today's consumers demand THC from their cannabis, it stands to reason that cultivators can double their price by growing a cannabis variety with twice as much THC.

The mystery was in the location. How could anyone grow plants from the high, dry deserts of Afghanistan in the rain-drenched forests of the Pacific Northwest? Furthermore, how could they grow enough to export a surplus to the Bay Area?

I began to think that a technological breakthrough had occurred, something akin to the Israeli development of drip irrigation. So, after collecting a couple of names, I packed my bags, notebooks, and cameras, and then headed north up Interstate Five.

I met the "Preacher" in the office of a Seattle publisher. After a brief introduction in a back room, the Preacher began his sermon: "Marijuana is a sacrament," he said, "and marijuana gardens are churches. If people would learn to smoke more sacrament the world would be a much better place." And if the price of admission to the secret gardens was a sermon, I would sit and listen.

The Preacher had surprising news when he and several of his lay assistants picked me up at the motel that evening. My tour of the "churches" would begin with a Super Sonics game at Seattle's Kingdome. We soon found ourselves sitting high up in the press section with refreshments in hand.

Now, the Kingdome is one of those marvels of modern sports architecture — an enclosed multipurpose stadium. Picture a small mountain of solid granite; take about a million pounds of TNT and hollow it out; level the floor; install seats up the sides; and there you have a Kingdome. And though cold, dark, and dank, this Kingdome enables fans to enjoy sports right through some of the longest rains in the USA.

"Why do you suppose we brought you here?" the Preacher asked. When I shrugged, he squinted up into the light and said, "Check out the lamps. They are the real miracle in this stadium." That was easy enough to see. Without those lights, of which there were hundreds, the Super Sonics would sustain many injuries tripping over stalagmites in the dark. "Each one of those lights is a 1,000-watt metal halide lamp, so they use a lot of energy and generate a lot of lumens.

Ed Rosenthal, an old hand at the magazine High Times, *gave us permission to reprint this account, which he compiled for them last fall. For the real nuts and bolts on how pot is grown indoors, you'll have to check* Indoor Marijuana Horticulture, *which we reviewed in issue #52 (Fall '86, p. 126). Outdoor weed growers (and buyers) should study an unusual government document issued last year, suggested to us by Robert Horvitz. The report is an Environmental Impact Statement disclosing the strategy and biological effects of aerial spraying of paraquat and other herbicides on thousands of acres of marijuana — both on cultivated and wild fields. At the same time, the two-inch-thick document presents an official assessment of the incredibly widespread agribusiness that marijuana has become. (It's one of the few commercial crops raised in every one of the 50 states.) Copies of the report are available free (until they run out) from the Cannabis Investigations Section, DEA, 1405 Eye Street NW, Washington, D.C. 20537. Ask for the DEA-EIS-2 report.*

—Kevin Kelly

INSIDE

"Now as you probably know," the Preacher continued, "the big money in professional sports comes from television revenue. And television cameras are calibrated for sunshine. So, for a broadcast to be of good quality, the lighting must closely match the frequency of sunshine. Those metal halides were designed to do just that. People sitting at home with a beer in their hand hardly notice that the game is being played in this big dark cave because the lighting is so much like sunshine."

The Nine-Light Garden

After the game we headed toward the Olympic Peninsula where, I was promised, we would visit a commercial-size grow-room. The Olympic Mountains receive up to 150 inches of rainfall per year; we drove for a long time with windshield wipers slapping back and forth.

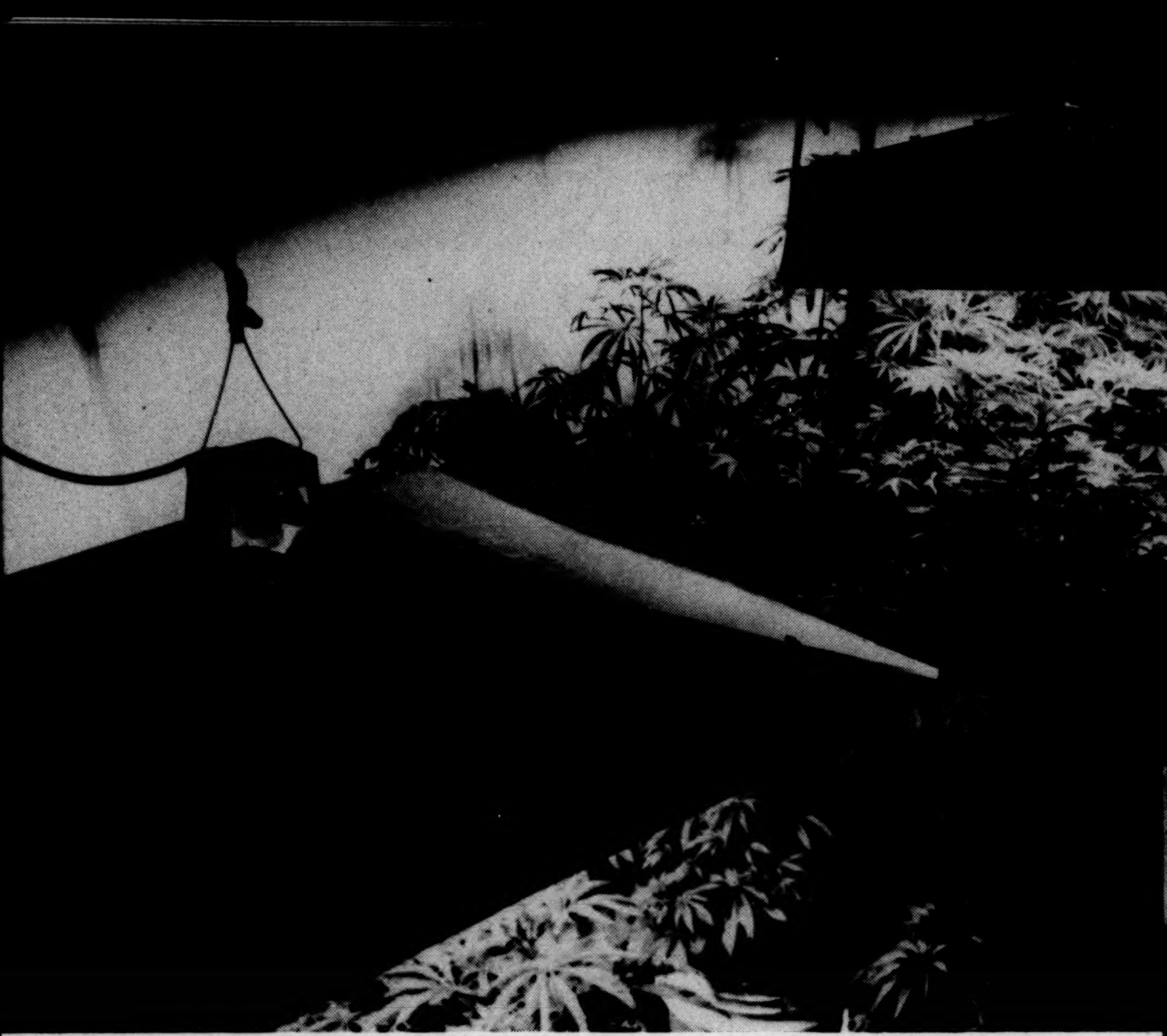
"Funny thing about all this rain," the Preacher remarked. "There is so much of it that we can't grow our sacrament outdoors like the growers in California. Yet there is so much falling water that we have an abundant and cheap source of electricity. So our clouds really do have a silver lining."

Finally, somewhere deep in the night, we pulled into a gravel driveway and got out to stretch our legs. The clouds had parted to reveal the twinkle of stars. It was cold. The green grass crunched beneath our feet as we walked around a modest suburban home toward a detached two-car garage. The Preacher opened a door and we entered a room filled with lawnmowers, tools, gardening implements, and the other paraphernalia typically associated with the average American dream. But after closing and locking the outside door, the Preacher removed a padlock from an inside door leading to the other half of the garage. He then turned and said, "Are you ready?"

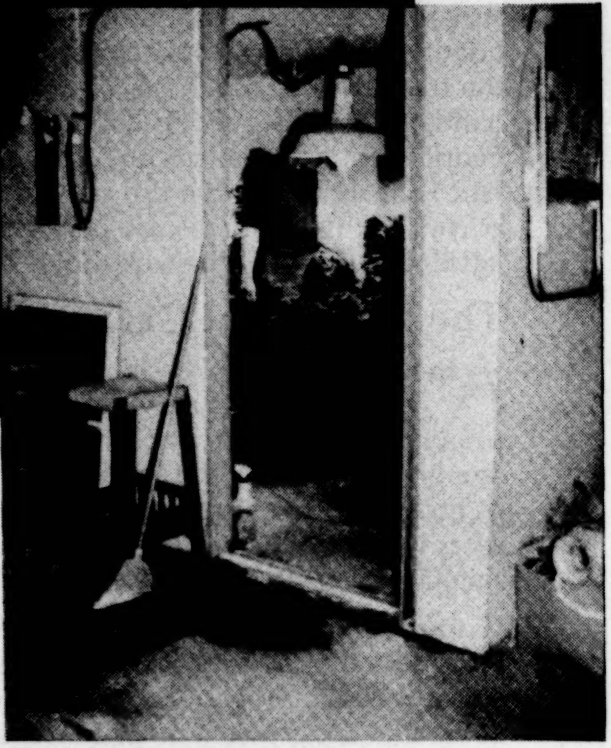
"Yes," I replied. He swung the door open to Afghanistan at high noon.

My eyes, accustomed to the soft twinkle of starlight, revolted at the flood of light which came pouring forth. The grow-room had been lined in sheetrock and painted white. Eight 1,000-watt halide lamps, like those which illuminated the

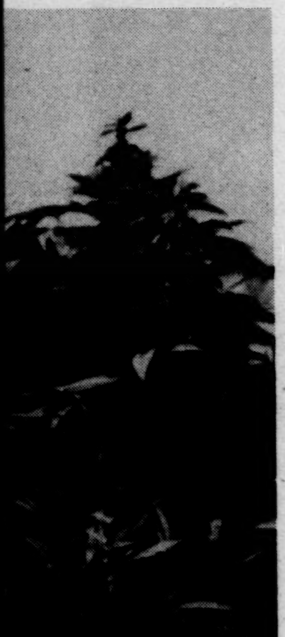
Walls are covered with foil-lined insulation which reflects the halide's light onto hungry plants.



Indoor plants are often dwarfed. Restricted to gallon-sized containers, they are forced to flower when they reach two feet in height.



A small grow room. Most this size, such as this one tucked into the corner of a basement, provide only enough cannabis for personal consumption, and perhaps a little surplus for friends.



Kingdome, were shining over a dense stand of mature sweet-smelling sinsemilla. The room vibrated with the lights' buzzing ballasts.

"They are an *indica/sativa* hybrid," the Preacher said, pulling the top of a plant down to his nose. "And they are almost ready for harvest."

I tried to count plants but they were so thick I couldn't see the entire forest. "How many plants do you have in here?" I asked.

The resident grower, an administrator with a local city government, replied, "There are about thirty plants. We grow two crops per year and hope for a yield of a half-pound per plant."

"But you have to use a propagation light to get two good harvests per year," added the Preacher. "We have another halide out in a shed that we use for starting seeds and making cuttings. Then, when we harvest this crop, we have another already started and ready to grow out."

"You have spring out in the shed and autumn in here. How do you regulate the growing seasons?" I asked.

"The most important element in controlling growth is the photoperiod," the administrator answered. "And controlling the photoperiod of these halides is really easy with automatic timers. We run the lights here in the growroom for twelve hours a day to initiate flowering. We run the propagation light eighteen hours a day to initiate vegetative growth."

"How much electricity do you use?" I asked.

"Follow me," said the administrator. We walked back outside into the cold and dark and headed toward the house. He stopped at the side of the house and shined a light on the electricity meter. I glanced at the meter and saw it spinning with the enthusiasm of a child's toy top. "Each of those lights burns about as much electricity as two twenty-one-inch color televisions. That's a lot of juice."

"Doesn't somebody wonder about all of that electricity?" I asked.

"We run the lights at night so the meter reader won't see the meter spinning so wildly," the administrator replied. "And we are going to install an electric pottery kiln for camouflage. But there aren't many people running this many lights, so the authorities aren't really watching closely, we hope!"

The administrator and I hustled back into the warmth of the grow-room, where the Preacher had decided it was time for a small harvest. "We do about three harvests for each crop," he said. "First we take the top 'colas' because they are next to the lights and more developed. Then in another week or so we harvest the rest of the colas from the top half of the plant. Then we harvest what's left on the bottom half of the plant. This technique allows each flowering node access to light and ensures maximum production of flowers."

I shot photographs as they snipped their way from plant to plant. "What is the biggest problem you had to overcome to grow indoors?" I asked.

"Our biggest problem at this location was all the moisture," the Preacher answered. "We started with a pure Afghani *indica,* but when the buds got big and tightly packed they started melting away with botrytis. We called it 'The Great Bud Rot.' So we crossed the *indica* with a *sativa* from Colombia that had a good resistance to botrytis. Now we have a strain with a high THC content and a resistance to rot."

On the way back into town I asked the Preacher if there were any real big grow-rooms. "You know, ones with a hundred lights?"

"None that I know," he replied. "The logistics of keeping something like that secret would be nearly impossible. So if I did know of one, I wouldn't breathe a word about it to anyone. But I do know of one real efficient operation and the growers just might let you in for a look."

The Twelve-Light Garden

Jack" and "Jill" were professional indoor growers who survived by moving their operation from location to location in the back of U-Haul trucks. "They can change houses and identities in less than one week," the Preacher said.

Like deer in hunting season, Jack and Jill were not easily approached. It took many phone calls to set up a meeting and a great deal of talking to gain their confidence. Finally, their professional pride opened the door and I went in for a visit.

They were, at the time, located in an older house somewhere in Seattle's University District. Their neighbors were suspicious; when I arrived late in the afternoon they peeked out from behind their window blinds.

It was dark inside the house. When my eyes became accustomed to the gloom, I saw that Jack and Jill did not enjoy many creature comforts. Their living room had only two old overstuffed chairs and one reading light. Old newspapers and magazines were scattered about the floor. When I was ushered into an unlit kitchen for a cup of coffee, I asked why they didn't turn on a light. "We are into energy conservation," Jill answered, "and every little bit helps."

After a few moments of coffee and conversation, I discovered what she was talking about. Suddenly the floor started vibrating like the deck of an aircraft carrier on a high-speed run. "What is that?" I asked.

"Just the lights," Jack answered. "We run them at night because we don't want the power company to read the meter when the lights are running." Jill turned on a kitchen light (25 watt), locked the front door, and then we went downstairs.

The basement, about 800 square feet, was extremely active. I counted ten 1,000-watt halide lamps and two banks of fluorescents. They were separated into two growing areas by a large furnace. The walls of the largest room were covered with a reflective tinfoil insulation. *Cannabis indica* was everywhere; there must have been a thousand plants in various stages of growth. Transpired particulates saturated the air with a skunklike fragrance. The entire basement vibrated with the buzz of halide ballasts.

It was not a comfortable environment. The air was charged and felt as though bolts of electricity were about to jump from floor to ceiling. We stood on the stairs for a while and just looked. Finally, I asked why they had two growing areas.

"One area is spring, and the other autumn," Jill replied. "Come down and I'll show you what I mean." She led the way into a corner of the basement which contained the fluorescents and two halides.

"We run these lights eighteen hours a day to keep the plants in their vegetative cycle," Jill said. Then, pointing to a row of large plants against the wall, she continued, "These are our mother plants. They are variations we developed from an Afghani strain we call 'Big Momma.' This one is a Thai/Afghani hybrid; this one is an African/Afghani hybrid. We take cuttings from these mother plants and root them under the fluorescents and then grow them under the halides. Then we sell the rooted cuttings to other growers or move them into the autumn room for flowering."

"What price do you get for the cuttings?"

"We get from forty to one hundred dollars apiece, depending on the size of the order," Jack answered. "Since there is as much risk in selling ten as in selling a hundred, we charge a lot for an order of ten."

The tinfoil-covered autumn room was filled with one-and-a-half-foot cuttings in eight-inch pots. "We don't grow tall plants like they do outdoors," said Jill. "We just grow them up to about two feet and then switch the light cycle

back to 12 hours a day to initiate flowering. Each of the cuttings will produce about two ounces of sinsemilla buds."

"What price do you get for the flowers?"

"We wholesale them for $200 an ounce. Our customers break the ounces down into grams and then sell each gram for about twelve to fifteen dollars."

"What about the electricity? Doesn't the utility company wonder about the size of your bill?"

"Each halide costs about thirty dollars a month to operate," Jack answered. "It adds up to about $300 a month, which we figure is about as far as we can go and still remain respectable. We installed a hot tub out back, but of course we never heat it. We are also thinking about getting a propane-powered generator with a custom-built muffler. It would sure help."

"What about the smell?" I asked. "Surely your neighbors can smell the plants."

"We don't ventilate until the neighbors are asleep, which is usually around one o'clock in the morning. And we use negative-ion generators," Jill replied, pointing to a small black box. "They cause the odor-bearing particles to fall to the ground instead of floating out with the exhaust."

"It seems as though you have solved the basic problems," I commented. "But how do you keep everything under control all of the time? What about the gossip of the neighbors or an unexpected visit by the landlord?"

To my nervous questions, Jack and Jill smiled, toked, and said, " . . . 'ere."

Supply And Demand

The Preacher was right about California growers: they did, and do, grow their sinsemilla under the sun. If you consider the resources with which they operate — the ample sunshine, the hills covered in native vegetation, the 40-acre ranchettes — you can readily understand why. But something happened between the late '70s and the middle '80s; a new industry blossomed into life.

Today there are approximately 35 retail stores on the West Coast, and five in the San Francisco Bay region alone, which cater to indoor growers. They are hybrid enterprises, half light store and half garden supply store. Furthermore, growers can simply purchase their halide from a conventional lighting store. ("I, ahhh, need a bright light for my back yard.")

To get a handle on the scope of this industry, I decided to ask the light manufacturers just how well their business is doing these days. Though most refused to disclose details, a cooperative gentleman from Phillips-Westinghouse said that in 1977, his company manufactured 1,600,000 metal halide lamps, and in 1984, it manufactured 3,100,000.

Law enforcement sees the indoor gardens as a victory of sorts. When I asked Jack Beecham, director of California's Campaign Against Marijuana Planting (CAMP), about the phenomenon of growers moving indoors, he replied, "There's no question that a portion of it (cultivation activity) has been forced indoors. Just how much we really don't know at this point. We see this as a victory because it probably costs about ten to twelve times more to cultivate indoors than it does outdoors. And by forcing it indoors we see a prime target for asset seizure. It's going to be difficult for anyone to deny the fact of a marijuana garden in their bedroom or living room."

"What strategy will CAMP use for finding the indoor gardens?" I asked.

"We think through traditional information sources, like informants, we will be able to target many of the growing operations," he answered.

"It would seem that one easy way to find the growers would be through a search of electricity bills. Does CAMP monitor electricity bills?" I asked.

"I know some local agencies and the DEA have done some of that," he answered. "I can't speak with any real authority, but it is my understanding that there may be an invasion-of-privacy problem. One of our most knowledgeable agents says that we can't just randomly search utility bills. We have to have grounds to do that, like information from informants."

"I have heard rumors that the DEA is considering using infrared scanners to check houses for abnormal heat leaks. Does CAMP use such scanners?"

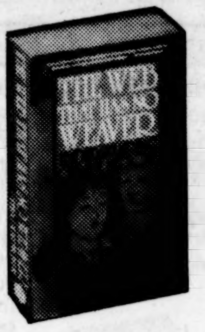
"There is nothing Star Wars-y about what we do: we just do it with the naked eye. At this point in time indoor growing is not our priority. Our priority is the outdoor operation, and we have plenty of those to go around."

Imagine fifty more years of Cannabis Prohibition: to catch the cultivators, authorities use an infrared scanning device capable of detecting a single marijuana plant from a geosynchronous orbit twenty thousand miles above the Earth. To resolve their dilemma, cultivators grow a strain of cannabis so potent that one six-inch sinsemilla plant, growing under a twenty-five-watt lamp in a lead-lined box, can supply the entire demand of a city the size of San Francisco . . . ■

The Web That Has No Weaver

Everyone working with acupuncture and oriental herbs says that this is by far the best introductory book on understanding Chinese medicine. The author anticipates questions that an informed, Western-trained doctor might ask, and gracefully weaves his explanations with these in mind, sewing together Western and Eastern conceptions of the body. —*Kevin Kelly*
[Suggested by Rochelle Schmalz]

The Web That Has No Weaver
Ted J. Kaptchuk, O.M.D.
1983; 402 pp.
$11.95
postpaid from:
Contemporary Books
180 North Michigan Ave.
Chicago, IL 60601
or Whole Earth Access



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Chinese medicine uses terminology that is strange to the Western ear. For example, the Chinese refer to certain diseases as being generated by "Dampness," "Heat," or "Wind." Modern Western medicine does not recognize Dampness, yet can treat what Chinese medicine describes as Dampness of the Spleen. Modern Western medicine does not speak of Fire, but can, from a Chinese perspective, stoke the Fire of the Kidney or extinguish excess Fire raging out of control in the Lungs. In Western medicine, Wind is not considered a disease factor; yet Western medicine is able to prevent Liver Wind from going to the head, or to extinguish rampaging Wind in the skin.

•

All relevant information, including the symptom as well as the patient's other general characteristics, is gathered and woven together until it forms what Chinese medicine calls a "pattern of disharmony." This pattern of disharmony describes a situation of "imbalance" in a patient's body. Oriental diagnostic technique does not turn up a specific disease entity or a precise cause, but renders an almost poetic, yet workable, description of a whole person. The question of cause and effect is always secondary to the overall pattern. One does not ask, "What *X* is causing *Y*?" but rather, "What is the relationship between *X* and *Y*?" The Chinese are interested in discerning the relationships among bodily events occurring at the same time. The logic of Chinese medicine is organismic or synthetic, attempting to organize symptoms and signs into understandable configurations. The total configurations, the patterns of disharmony, provide the framework for treatment. The therapy then attempts to bring the configuration into balance, to restore harmony to the individual.

•

"The Liver rules the tendons and is manifest in the nails." The proper movement of all the tendons in the body is closely related to the Liver. To Chinese medicine, "tendons" is a broader category than it is in Western anatomy, for it includes ligaments and, to some extent, muscles. If the Liver Blood is insufficient and incapable of nourishing the tendons, symptoms such as spasms, numbness of the limbs, and difficulty in bending or stretching may result. Liver disharmonies may also cause the nails to be thin, brittle, and pale. When the Liver Blood is plentiful, however, the tendons are supple and the nails appear pink and moist.

•

Classical theory recognizes about 365 acupuncture points on the surface Meridians of the body. With the inclusion of miscellaneous points and new points used in ear acupuncture and other recent methods, the total universe has risen to at least 2,000 points for possible use. In practice, however, a typical doctor's repertoire would be only 150 points.

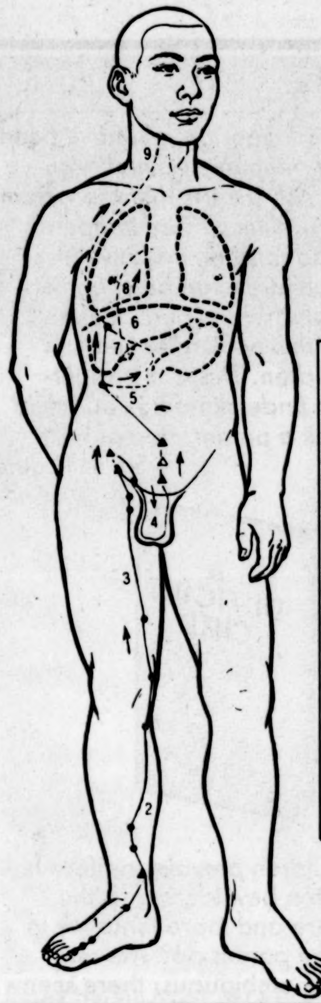
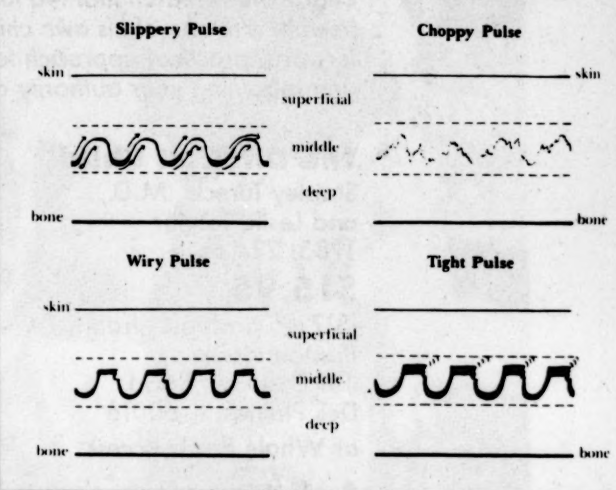


FIGURE 14
The Liver Meridian



Some of the types of pulse.

The Liver Meridian
(*Zu-jue-yin gan-jing* 足厥陰肝經)

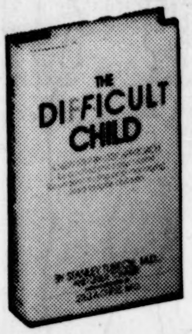
Beginning on the top of the big toe, the Liver Meridian traverses the top of the foot (1), ascending in front of the inner ankle and along the medial aspect of the lower leg (2) and knee. It runs continuously along the medial aspect of the thigh (3) to the pubic region, where it encircles the external genitalia (4) before entering the lower abdomen. It ascends internally (5), connects with its pertaining Organ, the Liver (6), and with the Gall Bladder, and scatters underneath the ribs (7) before pouring into the Lungs (8), where it connects with the Lung Meridian (Fig. 3). The entire cycle of the Meridian system begins anew here. Reconstituting itself, the Meridian follows the trachea upward to the throat (9) and connects with the eyes (10). Two branches leave the eye area: One descends across the cheek to encircle the inner surface of the lips (11); a second branch ascends across the forehead (12) to reach the vertex of the head.

In contemporary texts, point location is generally based on modern anatomy. For example, a manual produced by the Academy of Traditional Chinese Medicine in 1975 describes the location of a common point as "at the lateral side . . . above the transverse popliteal crease between the *musculus vastus laterali* and the *musculus biceps femoris.*" Classical texts, which do not reflect an interest in detailed anatomy, refer to that same point as the place where the tip of the middle finger naturally touches the thigh when the patient is standing. The classical literature locates other points by means of easily defined, yet precise, bodily landmarks such as creases, bony prominences, hairlines, and places where the skin changes in color and textural quality.

Each acupuncture point has a defined therapeutic action. The physician chooses to work on those points that are most appropriate for treating a particular individual's pattern of disharmony. Rarely are acupuncture points used singly; a combination of points is usually chosen. A typical treatment entails the insertion of five to fifteen needles.

The Difficult Child

I wish I'd had this book five years ago; I might have been able to spare both my son and me many painful arguments. Turecki, a child psychiatrist, asserts that more than 10 percent of children are born "difficult" by temperament: highly sensitive, poorly adaptable, negative in mood, or disorganized. Such children can be extremely frustrating to rear. Turecki speaks from experience; he began the research that led to this book after years of trouble with one of his own children. This is a straightforward, practical approach to understanding your child and regaining your authority as a parent, free of guilt.
—Sallie Tisdale



The Difficult Child
Stanley Turecki, M.D.
and Leslie Tonner
1985; 224 pp.
$15.95
($17.45 postpaid) from:
Bantam Books
414 East Golf Road
Des Plaines, IL 60016
or Whole Earth Access

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The problem is that difficult children *provoke* ineffective discipline. Their behavior is often bewildering to the parents, who then become more and more tentative in their response. What should the parent do? The messages the child is giving out are ambiguous; there seems to be no reason for the child's behavior. The parent then looks for motives in an effort to understand what is going on. Often this leads to a descent to the child's level, to a power struggle that no one wins. The parent ends up feeling victimized, exhausted, and incapable of coping. On to the next round.

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You are trying here to interfere with your customary gut responses to your child. Therefore, stop to think, and hold back from your previous automatic responses to his behavior: the immediate "no," the threats, the screaming. Try to disengage *your* feelings from this process and replace them with the attitude of a professor studying his subject. Aim for as cool an attitude of detachment as you can manage.

TEMPERAMENTAL TRAIT	LABEL
High activity level	You're overexcited. You're too revved up. You're beginning to get wild.
Distractibility	I know it's hard for you to pay attention.
Poor adaptability	I know it's hard for you to make a change. I know you're really busy, but you are starting to get "locked in." (Teach the child what the term means.)
Initial withdrawal	I understand this is new for you. I know it takes you time to get used to a new place. I know that new places (people, situations) give you trouble.
High intensity	I know you have a loud voice, but . . . I know you have trouble speaking softly, but . . .
Irregularity	I know you're not hungry/sleepy right now.
Low sensory threshold	I know you feel hot when other people don't. I know this sweater doesn't feel right. I know certain things smell/taste/look funny.

On Being Father

At last, an unapologetic, middle-of-the-road male perspective on divorce and giving up custody of the children. Ferrara freely shares not only his own experiences, mistakes, and solutions, but the residual anger he still struggles to control. He makes no attempt to be a 'new age' man or father — Ferrara settles for being a good man and father. The book covers living arrangements, visits, changes in parent-child relationships as the child grows, and issues of sex and remarriage.
—Sallie Tisdale

On Being Father
Frank Ferrara
1985; 175 pp.
$7.95 postpaid from:
Doubleday and Company
Direct Mail Order
501 Franklin Avenue
Garden City, NY 11530
or Whole Earth Access

•

Competitiveness arises when you have a need to "prove" that the divorce wasn't your fault, that she was the one really to blame for the failure of the marriage. So you try to show — to her, to the children, to your friends, and most of all to yourself — that you're a better person and a better parent than she is. You try to be both a better father *and* a better mother than your ex-wife. You're always comparing yourself to her, using her as a sort of measuring rod for yourself as you play your game of one-upmanship.

•

To put it bluntly, being a parent showed me my failings. Or rather, being a *single* parent showed me. I never would have learned this lesson if my wife and I had stayed together and gone on as we were. It was only in becoming a single parent that I saw how much I had to learn and was kicked into trying to improve myself. It was painful. And frightening.

•

Kids manipulating parents. Children have a genius for playing parents off against each other. "Why can't I stay up till eleven? Mom lets me do it." "You're so mean. I wish I were back at Mom's." Children instantly sense when Mom and Dad are competing with each other, when they are uncertain about the children's affection — and they shamelessly exploit the competition for their own advantage. . . .

Children should not be encouraged to make any comparisons at all between you and their mom. When you hear these lines from your children, you can be pretty sure you're being manipulated. To let it go on is to foster lying as a way of life and to give the children a false sense that they can manipulate the whole world. Since they don't fully realize what they're doing, it makes no sense to yell at them for it. An honest admonition is enough: "What your mother lets you do is between you and her. Your behavior there has nothing to do with your behavior here. When you're with me, the standards of behavior are strictly between you and me."

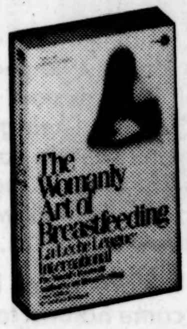
•

The zoo is usually the last resort of the weekend father who is desperately afraid of the children being bored. He provides a whirlwind of activities for them, hoping to keep them occupied and amused. The zoo, the movies, fast-food restaurants — any activity at all, in fact — eventually grows stale because it *is* just entertainment — diversion and nothing more. A weekend of diversions sooner or later goes stale on the children.

The Womanly Art of Breastfeeding

We have La Leche League International to thank for reversing the trend away from breastfeeding that was prevalent 25 years ago; today over 50 percent of women choose breastfeeding (90 percent in some areas). Thirteen years ago, when I was pregnant with my first child, I kept this book in the bathroom and read it over and over again and again to gain the confidence to breastfeed. **The Womanly Art of Breastfeeding** *reassures you that everyone can breastfeed and tells you everything you need to know for success. A traditional view of mothering is emphasized because the authors — seven founding mothers of La Leche League — have found that many traditional values help insure the physical closeness and contact necessary for breastfeeding. First published in 1958 and updated over the years, this book has become the breastfeeding bible.* —*Peggy O'Mara McMahon*

The Womanly Art of Breastfeeding
La Leche League International
1981; 368 pp.
$7.95
($9.45 postpaid) from:
New American Library
P. O. Box 999
Bergenfield, NJ 07621
or Whole Earth Access



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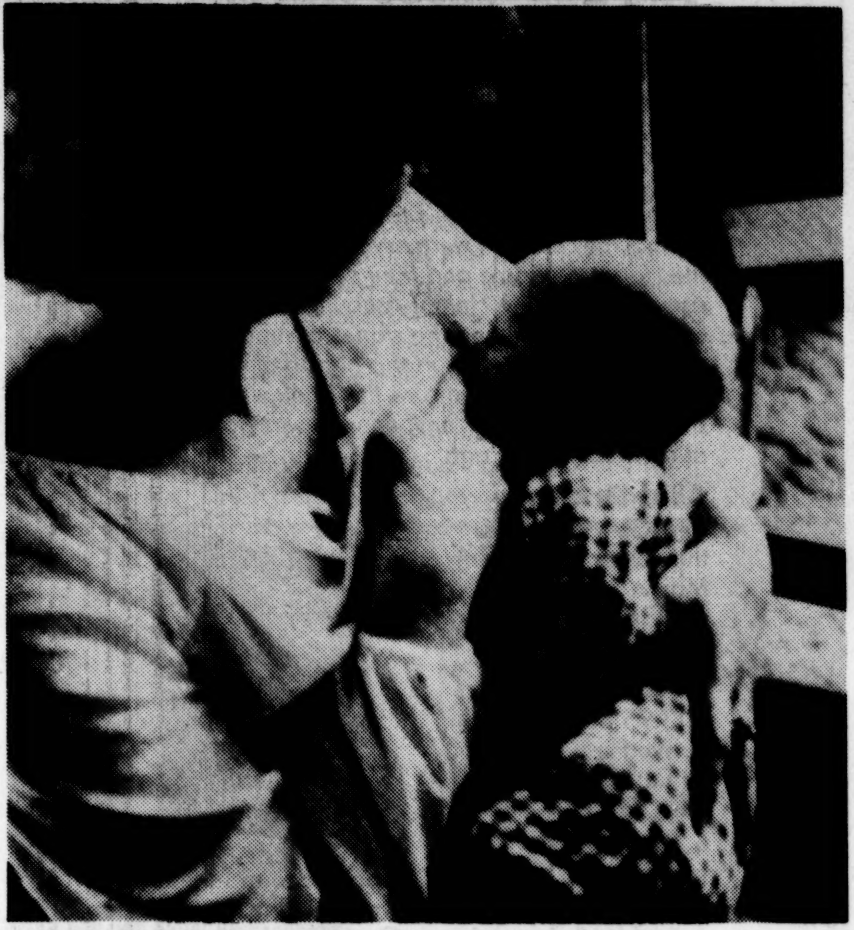
Breastfeeding while sitting up is basically the same as when lying down. Baby should be held facing your breast with head up close, yet tilted back slightly. Baby should be looking up at you. Cup your breast in your hand and press down on the areola with your thumb. This should point your nipple out and upward. Again, baby should get your nipple and part of the areola well into his mouth. He will be able to grasp the nipple well if you hold him close to you. If baby chews only on the end of the nipple, he may develop a style of nursing described by one mother as the "cliff-hanger." Baby won't get as much milk, and mother is likely to get sore nipples. As your baby grows older and holds his head well, you won't have to take such careful notice of angle and position; he'll get where he wants to go, all on his own.



Becky Herbin holds her son Michael close with his body facing her, and uses her fingers to shape her nipple so he can grasp it properly.

Crying Baby, Sleepless Nights

One of the adjustments of new parenthood is the reality of nighttime parenting. New babies don't know about day and night right away, and they need frequent feedings and close contact. Sandy Jones gives you many suggestions on how to determine if baby's night waking is normal night waking, or if there really is something you can do about it. Mothers with babies with colic will love this book and be reassured by it. It's also good for expectant parents wanting to know what to expect from a new baby. The book includes 100 tips for the "less-than-perfect" mother, a directory of support groups for parents, and information on finding the right pediatrician.
—*Peggy O'Mara McMahon*

Crying Baby, Sleepless Nights
Sandy Jones
1983; 293 pp.
$7.95
($8.95 postpaid) from:
Warner Books
P. O. Box 690
New York, NY 10019
or Whole Earth Access

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What's the secret of knowing one baby cry from the other? Most mothers use their inner sense of their babies' daily schedule to help them, along with observing baby behavior in its everyday context.

If the baby's been asleep for three and a half hours and he wakes up crying, he's probably hungry. If the baby's been up for three hours and he seems fitful and keeps batting at his ear and mildly fussing, he's probably ready to nurse off to sleep. If he wakes up in the middle of the night with a loud, piercing scream, he's probably in pain from a diaper pin pressing into his side, a string from his sleeper wrapped around his toe, a bubble of gas trapped in his stomach, or some other inner or outer pain.

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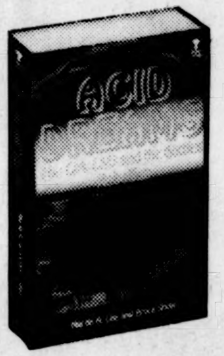
How quickly a parent responds to a baby's cries dramatically influences how quickly and easily the infant can be soothed. Dr. Evelyn B. Thoman and her colleagues at the University of Connecticut have discovered that the longer a parent takes to answer a baby, the longer the baby cries afterward. The critical cutoff point for answering a baby's cries, they have found, is *a minute and a half!* If the mother answers after the first ninety seconds, the amount of time that it takes to quiet the baby triples, quadruples, or in some cases increases to fifty times longer than if she had answered quickly!

> *"I think the most important thing for me was that I did what I knew I had to do, what my baby needed, not what friends or family thought was needed."*

Acid Dreams

This book is the first history of the psychedelic movement I've read that's relatively free of obfuscating ideology. It is mostly the history of the post-WWII years as that history bears upon and is influenced by the introduction of psychedelic drugs into society, including the early psychiatric studies, the CIA's research and use on Americans of what they thought were psycho-chemical warfare agents, the Harvard people and their subsequent activities, the rise and fall of the Haight-Ashbury, the political cauldron of the late sixties, and the stories of many strange characters whose real roles in this period of history are still somewhat unclear. I'm sure this book will trigger a lot of strange memories for anyone who was paying attention at all twenty years ago. —*Shel Kaphan*

Acid Dreams
(The CIA, LSD, and
the Sixties Revolution)
Martin A. Lee
and Bruce Shlain
1985; 343 pp.
$12.95
($13.95 postpaid) from:
Grove Press
10 East 53rd Street
New York, NY 10022



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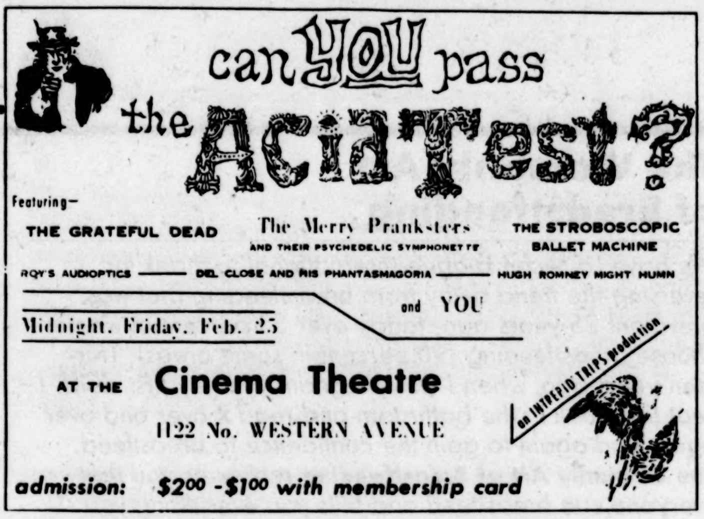
There were times when CIA agents found themselves propelled into a visionary world and they were deeply moved by the experience. One MK-ULTRA veteran wept in front of his colleagues at the end of his first trip. "I didn't want to leave it," he explained. "I felt I would be going back to a place where I wouldn't be able to hold on to this kind of beauty." His colleagues assumed he was having a bad trip and wrote a report stating that the drug had made him psychotic.

Adverse reactions often occurred when people were given LSD on an impromptu basis. On one occasion a CIA operator discovered he'd been dosed during his morning coffee break. "He sort of knew he had it," a fellow-agent recalled, "but he couldn't pull himself together. Somehow, when you know you've taken it, you start the process of maintaining your composure. But this grabbed him before he was aware, and it got away from him." Then he got away from them and fled across Washington stoned out of his mind while they searched frantically for their missing comrade.


can YOU pass
the Acid Test?
Featuring—
THE GRATEFUL DEAD
The Merry Pranksters
AND THEIR PSYCHEDELIC SYMPHONETTE
THE STROBOSCOPIC BALLET MACHINE
ROY'S AUDIOPTICS — DEL CLOSE AND HIS PHANTASMAGORIA — HUGH ROMNEY MIGHT HUMN
and YOU
Midnight. Friday. Feb. 25
AT THE Cinema Theatre
1122 No. WESTERN AVENUE
an INTREPID TRIPS production
admission: \$2^{00} -\$1^{00} with membership card

Ken Kesey and the Merry Pranksters hosted a series of acid tests on the West Coast.

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The Millbrook residents were a tight-knit group. They shared a common lifestyle geared toward exploring the realities of their own nervous systems in a creative rather than a clinical setting. Their goal was to discover and cultivate the divinity within each person. The permanent members of the household regularly tripped together, rotating as shaman in "follow the leader" sessions involving high doses of LSD-25. . . .

Since many in the group had backgrounds in behavioral psychology, it came natural to them to keep a scorecard of their changing states of consciousness. On certain days a bell would ring four times an hour starting at 9:00 A.M. The bell was a signal to stop and record what they were doing then, what "game" they were playing.

In many ways the scene at Millbrook was like a fairy tale. The mansion itself was beautifully furnished with Persian carpets, crystal chandeliers, and a baronial fireplace, and all the rooms were full of elaborate psychedelic art. There were large aquariums with unusual fish, while other animals — dogs, cats, goats — wandered freely through the house. People stayed up all night tripping and prancing around the estate. (A stash of liquid acid had spilled in Richard Alpert's suitcase, soaking his underwear, when the psychedelic fraternity was traveling back from Zihuatanejo, so anyone could get high merely by sucking on his briefs.) . . .

. . . Once I Have Had My Tea

I picked up this book because of its subtitle, "A Guide To Understanding And Caring For The Memory-Impaired Elderly." My grandmother's memory is impaired, and it has become a great source of frustration to my mother, who now lives with her. The poem on the first page grabbed me and shook me so hard that I read the rest of the book and saw to it that my mother got a copy.

Sensitive, simple and straightforward, ***Once I Have Had My Tea*** *teaches you how to understand the problem and the best way to help the memory-impaired.*
—*Susan Erkel Ryan*
[Suggested by Joyce Safia Schowalter]

•

I wake
and fear grabs hold of me.
What day is this?
And is there something
I should do —
a place to be?
Is this what crazy is?
Thank God I know I'm me.
I must get up
and be about my day.
I wonder why . . . and when . . .
There now. I see.
The saucer and the cup.
No matter now I can't recall
what things might set me free.
I'll be all right . . .
Once I have had my tea.

Once I Have Had My Tea
Patricia Hladek, R.N.C.
1982; 35 pp.
$5
postpaid from:
Patricia Hladik
P. O. Box 19261
Jacksonville, FL 32245

•

1. Avoid Reasoning
One of the most troublesome situations for the memory-impaired person occurs when a helper engages him in a discussion requiring an ability to reason. It is important to avoid these instances with someone who has demonstrated that he has lost "reasoning" ability, i.e., "to determine or conclude by logical thinking."

•

4. Offer Choices
Often, the impaired person's resistance to care is merely an attempt to control a situation and retain a measure of independence. This sense of control can be supported by offering choices. Offering a choice from only two options is helpful with the forgetful person because of the difficulty he has in remembering a number of options or in judging which choice is preferable. It is important in doing so, however, to be sure that either selection is acceptable to the person providing the care.

Ordinary People As Monks And Mystics

Is withdrawal ever a healthy, growth-promoting response to the stresses of modern daily life? Marsha Sinetar believes it is. In this useful and informative book she defends the monastic life of solitary simplicity. A therapist schooled in the theories of Abraham Maslow, Sinetar challenges the traditional therapeutic approach of encouraging the client to adjust to society. Quoting traditional mystical teachers and a number of modern "monks and mystics" who responded to a study she conducted, she discusses the value and necessity of periods of solitude to complete certain stages of inner growth. Carefully defining the terms "monks" and "mystics," she details their varying needs and the creative solutions they have devised to meet these needs in a culture which is not supportive of the reclusive life. —Dixie Tracy-Kinney

Ordinary People As Monks And Mystics
(Lifestyles for Self-discovery)
Marsha Sinetar
1986; 183 pp.
$7.95
($9.70 postpaid) from:
Paulist Press
997 Macarthur Boulevard
Mahwah, NJ 07430
or Whole Earth Access

•

Even though on the surface it may appear as if the individual is backing away and losing interest in all the usual things, in the long run there develops a progressively cooperative, stewardly and morally concerned personality who is able to adopt a neatly balanced selfish/selfless life in relation to the world.

I think it interesting that Abraham Maslow acknowledged this phenomenon in a paper he presented in 1951, when he reported that his *healthiest* subjects were independent, detached and self-governing, and had a tendency to look within for their guiding values and for the rules by which they lived. He also observed their strong preference, even need, for privacy and their detachment from people in general. His healthiest subjects were only superficially accepting of social customs, while in private they were quite casual and even humorously tolerant of them, not feeling that conventions were very important to them. They had the ability to fight convention when they thought it necessary, and judged things by their own inner criteria. When they felt that something (about American culture, in the case of Maslow's study) was good, they accepted it. When they felt that something was bad, they rejected it. For all these reasons, Maslow called such people *autonomous.*

•

While the degree of social transcendence differs, and while the degree of severity of sacrifice is as varied as the individuals themselves, there are some patterns of letting go held in common by all who are called to the vocation under discussion:

Sacrifice of collective opinion, custom, vanity, security, guarantees, *in favor of* identifying and expressing the deepest values of one's life: love, truth, beauty, compassion, etc.

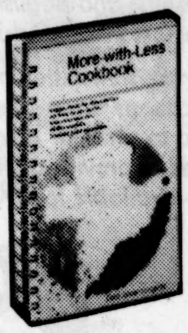
Sacrifice of living unconsciously, of not knowing who one is or what is right *in favor of* bringing the law of one's being into existence through conscious expression.

Sacrifice of direct and "safe" routes of accomplishment *in favor of* those which may be more demanding, riskladen, ethical, illogical, unpopular, etc.

Sacrifice of the individual's peculiar, risk-avoiding tendencies (e.g., withdrawal from or avoidance of difficulty) *in favor of* reliability, commitment, and responsibility in relationship to self-and-others.

More-With-Less Cookbook

This Mennonite cookbook is subtitled "Suggestions by Mennonites on how to eat better and consume less of the world's limited food resources." That's about it. This is like those cookbooks that ladies' groups in churches put out to raise funds, and nobody ever uses them, although everyone buys them and gives them away. Well, this is one that gets used over and over again. Want to know how to make high-protein waffles that don't taste like they are good for you? How about homemade baked beans and the best Boston Brown Bread in the world? All of the essentials are here, as well as a lot of wonderful things that make your eating life exciting. You can cook like Grandma, or like the next generation, with the recipes in this book — and they are all written by families who are concerned with the other people on the planet who need to eat. There are meat recipes here, and desserts, and hints (you'll never pay for brown sugar again) and little bits of history. —Naomi L. Siegel



More-With-Less Cookbook
Doris Janzen Longacre
1976; 328 pp.
$9.95
($10.95 postpaid) from:
Herald Press
606 Walnut Avenue
Scottdale, PA 15683

I use less sugar in my cookies and coffee cakes than the recipes call for. I cut the amount of sugar by ¼ to ½. My children don't even notice the change. Cookies don't last any longer.
—Marianne Miller, Topeka, Kan.

I have been using ⅓ less sugar in all ice cream, cookies, brownies, pudding, and pie recipes and haven't ruined anything yet.
—Pauline Wyse, Mt. Pleasant, Iowa

•

I keep a large plastic container in the freezing compartment of our refrigerator. Into it go leftovers — vegetables, noodles, broth, meat — anything which might be good in a vegetable soup. When the container is full, I add water, perhaps more broth and seasonings and cook everything together. We have had some delicious soups made this way and since each is just a little different, it is always a surprise (not another rerun of Standard-Brand Vegetable-Beef). Some advantages: we seldom have to eat leftovers and I rarely have to throw food away which sat too long in a corner of the refrigerator.

—Helen Peifer, Akron, Pa.
—Joann Smith, Goshen, Ind.

•

Be forewarned! The recipes in this chapter are not very sweet. Many came in with reduced sugar amounts and some we reduced further. But our testers still gave them good ratings. Typical comment was "Recipe calls for ¾ cup sugar. I made it a second time with only ⅔ cup and it still disappeared quickly. Half a cup would be enough." With sugar, when half a cup is enough, you get more with less.

Contributor says this was her mother's standby when unexpected guests stayed for Sunday evening supper.

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Old-Fashioned Bread Omelet

Serves 4
325°
10 min.

Combine and soak 15 minutes:
1 c. bread cubes
½ c. milk
Preheat oven to 325°
Combine in bowl:
4 eggs, beaten
¼ c. grated cheese
½ t. salt
bread and milk mixture
Heat in skillet:
1 T. margarine
Pour in egg mixture and cook over medium heat without stirring, about 5 minutes. When browned underneath, place pan in oven for 10 minutes to finish cooking on top. Turn out onto hot platter, folding omelet in half.

Adele Mowere, Phoenixville, Pa.

The People's Medical Society

Doctors have the American Medical Association to look after their interests. Hospitals have the American Hospital Association. Now health consumers have the People's Medical Society (PMS).

PMS now has more than 70,000 active members. The group was established in response to the "growing cost and depersonalization of medical care, and the monopolistic excesses of the medical profession." In addition to pro-consumer lobbying on health issues, PMS provides a newsletter and other publications to help its members: avoid unnecessary medical care; save money on the care they do need; obtain access to the medical information they need; become experts on the health issues which concern them; join together with other local consumers to provide support and to encourage reform of local medical institutions; evaluate local doctors. (The PMS national office circulates visit-evaluation forms, tabulates the results, and publishes consumer satisfaction ratings of all doctors evaluated.)

A sample newsletter, membership information, and list of publications are available on request. Health workers are invited to send for a copy of the PMS Code of Practice. Names of providers who have subscribed to the Code are made available to PMS members. —Tom Ferguson, M.D.

●

Pidgeon-Toed and Roller Skates

A lot of childredn are pidgeon-toed and a lot of doctors go a little overboard when it comes to treating it. They often prescribe braces and casts for these young children as if putting a child in a brace a few hours a day is really going to do anything. You can, of course, bind children's feet like the Chinese do, but just wearing a brace part-time isn't going to do much. The point is, nothing should be done. Most pidgeon-toed toddlers will turn around in and of themselves. But if you want to try something, you might consider the suggestion of one of our listeners. She suggests rollerskates. She said it's impossible to roller skate when you're pidgeon-toed and that this is something that can possible train a child to point the toes in the right direction. Either way, it can't hurt except when they fall and bruise themselves, but it's worth thinking about, isn't it?

●

Thalidomide Again

I bet you never thought you'd see Thalidomide in a medical journal again. This time doctors have found that thalidomide relieves the pain of inflammation and also the blood abnormalities in patients with rheumatoid arthritis. This was a surprising finding, but basically the only thing wrong with thalidomide is that it causes birth defects. If people know that's a problem, pregnant women would never go near it and we shouldn't close the door on a drug that may turn out to be effective. There are a couple of other diseases that thalidomide has been found effective in, and I think we may see a resurgence of interest in this drug.

THE PEOPLE'S
MEDICAL JOURNAL

The People's Medical Journal
Reed Huegel, Editor
$24/year
(12 issues) from:
The People's
Medical Journal
P. O. Box 81
Kentfield, CA 94914

Homeopathic Educational Services

The healing system of homeopathy, more than 200 years old, still suffers from an image of quaint eccentricity. Dana Ullman, who has practiced homeopathy for 13 years, would like to change that. He runs Homeopathic Educational Services, writes articles, and has co-authored the book **Everybody's Guide to Homeopathic Medicines** *(***WER** *#45, p. 49).*

Homeopathic Educational Services is a mail-order business selling homeopathic remedies, books, lecture tapes, research articles, and home medicine kits. (HES is, at this writing, creating a discount package for the beginning student.) Ullman is exuberant and efficient, quick to answer his mail and filled with a genuine love for his subject. He welcomes questions and requests from both the beginning and advanced student of homeopathy, as well as professional practitioners.

I have found HES to be quick to fill orders and careful in its handling of the medicines. Unfortunately, the publicity material is guilty of all the quaintness of the stereotype: poorly designed and confusing, and in some cases typed and copied poorly. Overlook the pamphlets and order forms, though, to find a useful service.

Resonance *is the field's newsletter.* —Sallie Tisdale

●

KIT #1 includes 29 medicines in 6th potency in one ounce bottles. KIT #2 includes 25 medicines in the 30th potency in 2 dram bottles (approximately ¼ of an ounce).

Although the 30th potency medicines are generally deeper and faster acting than the 6th potency, they require greater precision in prescription. If you are uncertain about your homeopathic prescribing, we encourage you to obtain KIT #1.

Kit #1.

A TIME FOR CHANGE

Resonance
Lanny Cotler, Editor
$25/year
(6 issues; includes
membership) from:
International Foundation
for Homeopathy
2366 Eastlake Ave. East,
Suite 301
Seattle, WA 98102

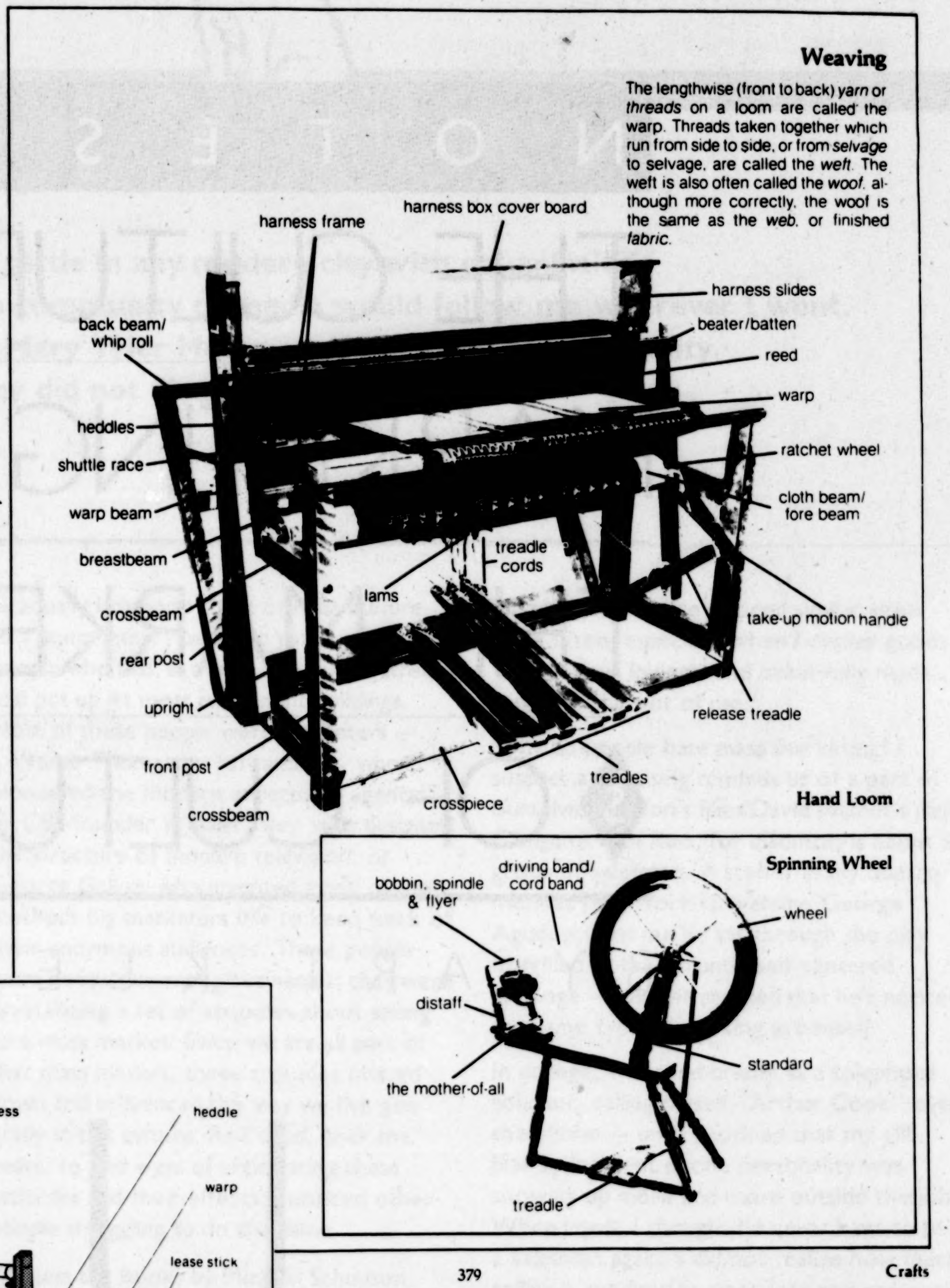
Homeopathic Educational Services
Information **free** from:
Homeopathic Educational
Services
2124 Kittredge Street
Berkeley, CA 94704

What's What
• Facts on File Visual Dictionary

*In 1981, the **Oxford-Duden Pictorial English Dictionary** (**EWEC** p. 310) created a new type of reference book. If you couldn't think of the name of a commonplace or technical object, but knew what it looked like, you could look up its picture and get its name — sort of like a field guide to modern life. Now there are two superior predators in this literary niche. Where the original **Oxford-Duden** uses an unwieldy numbering system to link its words and pictures, these two, **Facts on File** and **What's What**, use direct pointer-type labels.*

*Which to get? **Facts on File** is the most inviting overall, with a great index and broad range (about 800 pages that cover science and technology well), but it's expensive ($30, or three times more than **What's What**). Have your library order this heavy-duty version. If you find yourself constantly needing words you can't think of, I'd buy **What's What**. It's glib, cheaper, and focuses more on the things of contemporary everyday life.*

—Art Kleiner



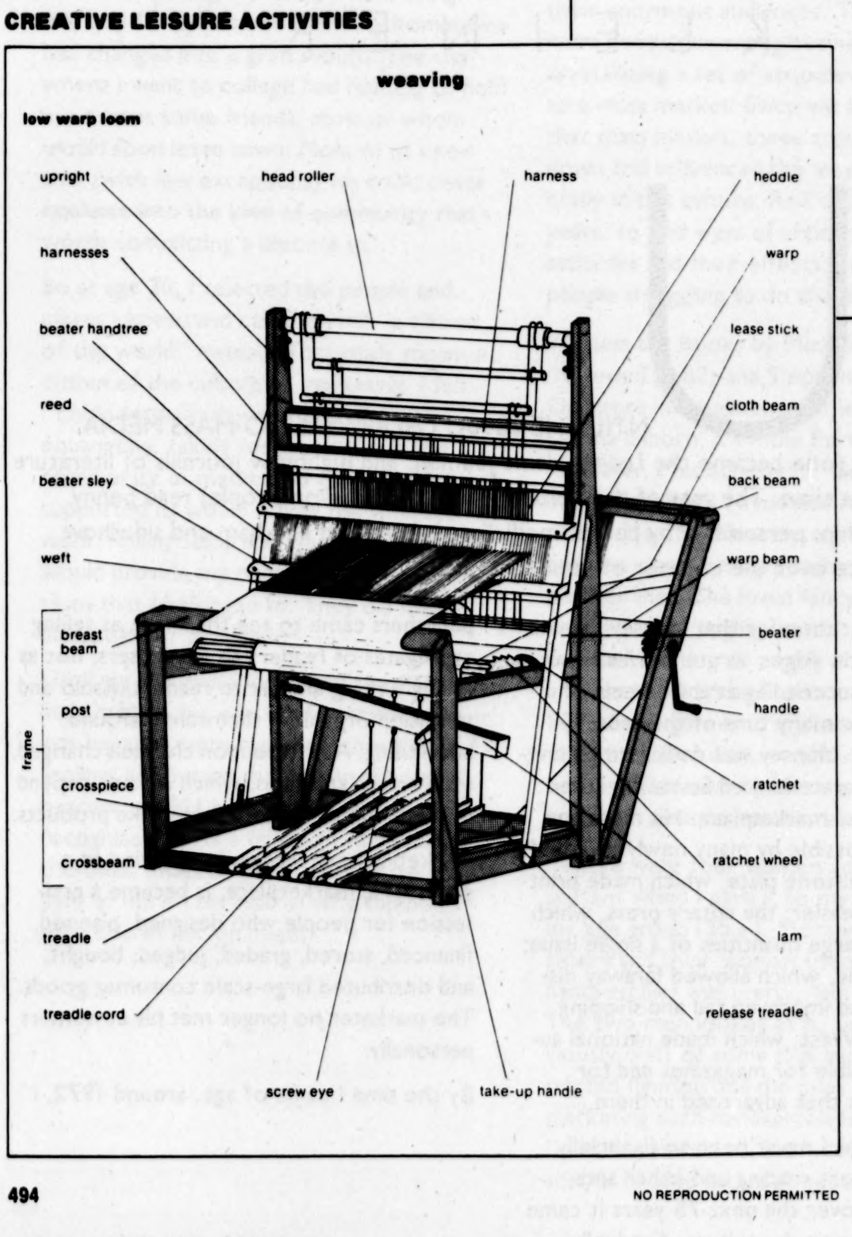
Weaving

The lengthwise (front to back) *yarn* or *threads* on a loom are called the warp. Threads taken together which run from side to side, or from *selvage* to selvage, are called the *weft*. The weft is also often called the *woof*, although more correctly, the woof is the same as the *web*, or finished *fabric*.

harness frame
harness box cover board
harness slides
back beam/
whip roll
beater/batten
reed
warp
heddles
shuttle race
ratchet wheel
warp beam
cloth beam/
fore beam
breastbeam
treadle
cords
lams
take-up motion handle
crossbeam
rear post
upright
release treadle
front post
treadles
crossbeam
crosspiece
Hand Loom
bobbin, spindle
& flyer
driving band/
cord band
Spinning Wheel
wheel
distaff
standard
the mother-of-all
treadle
379
Crafts

—What's What.

CREATIVE LEISURE ACTIVITIES



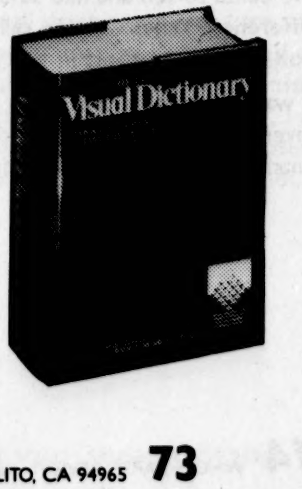
weaving
low warp loom
upright
head roller
harness
heddle
harnesses
warp
beater handtree
lease stick
reed
cloth beam
beater sley
back beam
weft
warp beam
breast beam
beater
post
handle
frame
crosspiece
ratchet
crossbeam
ratchet wheel
lam
treadle
release treadle
treadle cord
screw eye
take-up handle
494
NO REPRODUCTION PERMITTED

— Facts on File Visual Dictionary

What's What

Reginald Bragonier, Jr.
and David Fisher, editors
1981; 565 pp.

$9.95
($10.95 postpaid) from:
Ballantine Books
Random House
400 Hahn Road
Westminster, MD 21157
or Whole Earth Access



Facts on File Visual Dictionary

Jean-Claude Corbeil
1986; 797 pp.

$29.95
postpaid from:
Facts on File
460 Park Avenue South
New York, NY 10016
or Whole Earth Access

NOTES ON

THE CULTURE OF MARKETING AND THE MARKETING OF CULTURE

BY ART KLEINER

UNTIL THE 1890s, THERE WAS NO MASS MEDIA. There were a few magazines for farmers and their wives (one became the *Ladies' Home Journal*), and highbrow journals of literature and "culture" for the 250,000 wealthy Americans of that time. The rest of the citizenry (about 80 million people) read penny newspapers, or nothing. Advertising was local showmanship, personified by patent medicine-maker Lydia Pinkham and sideshow impresario P.T. Barnum. "Marketing" was what took place over the counter of your local store.

In 1893, 39-year-old Frank Munsey invented the first nationally distributed and mass-read magazine. Munsey, who had grown up poor in rural Maine, saw a large, broad, national audience that couldn't afford magazines, so he lowered the cover price of his failing literature magazine, *Munsey's*, from twenty-five cents to ten and had advertisers pay the difference. What we now call the Information Age has its roots in that innovation.

It was no accident that Frank Munsey revered J. Pierpont Morgan, the prime financier of the American industrial monopolies of that time; or that Munsey, like his friend Horatio Alger, wrote stories about young men succeeding at the wheels of industry. Like many turn-of-the-century industrialists, Munsey was dedicated to knitting the disparate United States together into one mass marketplace. His magazine was made possible by many newly invented tools: the halftone plate, which made printing pictures easier; the rotary press, which could print large quantities of a single issue; the telephone, which allowed faraway distributors; and improved rail and shipping service out West, which made national audiences possible for magazines *and* for the products that advertised in them.

Advertising had never been so financially vital to support reading and other arts before, but over the next 75 years it came to dominate popular culture. Gradually, publishers came to see their role as selling aggregates of readers to advertisers, not as selling writing and art to readers. Radio and television organized themselves around advertising. As distribution channels changed, even books and films, which did not depend on advertising, were marketed like products.

Marketing itself was no longer tied to a geographic market*place*. It became a profession for people who designed, planned, financed, stored, graded, judged, bought, and distributed large-scale consumer goods. The marketer no longer met his customers personally.

By the time I came of age, around 1972, I

I felt I could settle in any modern city with equanimity, taking for granted that the community of media would follow me wherever I went. Rolling Stone and Mary Tyler Moore would provide my continuity. They did not disappoint or disappear.

lived in a country where the ubiquitousness of mass marketing was pretty much taken for granted. I saw the best minds of *my* generation living in two separate communities: first, the cities, towns, friends, and families we had grown up with or had come to know; second, the people we only knew through television, magazines, films, radio, and posters.

In my case, the second community was more compelling. By comparison, living with my family seemed alien. My hometown had changed into a grim suburb. The city where I went to college had nothing to hold me except some friends, most of whom would soon leave town. Most of us knew that (with few exceptions) we could never coalesce into the kind of community that's worth committing a lifetime to.

So at age 20, I rejected the people and places I knew, and called myself "a citizen of the world" instead. That really meant a citizen of the culture of marketing. I felt I could settle in any modern city with equanimity, taking for granted that the community of media (and the products that supported it) would follow me wherever I went. *Rolling Stone* and Mary Tyler Moore would provide my continuity. They were clubs that I belonged to. They did not disappoint or disappear.

Until my mid-twenties, I didn't realize how little quality this way of life provided me — not because more highbrow thoughts and feelings are better, but because the evanescent world I inhabited did not really recognize *me*. As a friend of mine said at the time, "Raquel Welch doesn't have a picture of me on *her* wall — why should I have one of her on mine?"

Gradually I came to think of mass culture as a community. I began to read up on the people who had, in effect, laid out its streets and put up its most prominent buildings. Most of these people were marketers — J. Walter Thompson, for instance, who pioneered the modern advertising agency; or CBS founder William Paley, who designed the structure of modern television; or George Gallup, who invented many of the methods big marketers use to keep track of their enormous audiences. These people were not just inventing businesses; they were crystallizing a set of attitudes about selling to a mass market. Since we are all part of that mass market, these attitudes filtered down and influenced the way we live generally in this culture. As I tried, over the years, to find ways of articulating these attitudes and their effects, I noticed other people struggling to do the same.

Witness the books by Michael Schudson (reviewed p. 82) and Stephen Fox (p. 83). Or, more immediately, this letter from Donna Lilborn, a Whole Earth reader in Mill River, Massachusetts: "Some years ago, my dad died and I inherited his handkerchiefs. Mostly I blew my nose in them, but one was a pretty peach color that my mother liked. She loved fancy handkerchiefs. So I tatted an edging for this peach handkerchief. Tatting an edging is a dying art, and one handkerchief's work takes, probably, 50 hours. I gave it to my mother about a year after Dad died, on their wedding anniversary. This was, by me, a *gesture* — symbolic, artistic, emotional.

"There were four women and two men present when I gave it to my mother, all in my age group (35 +). Mom was moved. My sisters and their woman friend thought the handkerchief was pretty, 'but a lot of work!' The two men looked at it, said it was obviously craft of some skill and beauty, and started figuring out the pros and cons of marketing such handkerchiefs. Neither of them is a merchant. Everybody's thoughts sort of headed in that direction . . . including, I'll admit, mine. I've noticed similar situations often, especially when I display goods which I have lovingly and beautifully made. Bugs the shit out of me."

Why do people hate mass marketing? I suspect advertising reminds us of a part of ourselves we don't like. David Mamet's play *Glengarry Glen Ross*, for instance, is about a group of salesmen. A staffer in my department at New York University, George Agudow, told me he sat through the play horrified at their bluntly self-centered language — until he realized that he's noticed the same type of thinking in himself.

In college, I worked briefly as a telephone solicitor, calling myself "Arthur Cook" over the phone — until I noticed that my glib, blandly insistent phone personality was showing up more and more outside the job. When I quit, I thought I'd never have to be a salesman again. I did not realize how much selling is required in most jobs and personal lives. The most popular men's and women's magazines are designed to help people market themselves better as mates and friends. When I first realized that every new acquaintanceship was at least somewhat like a sales meeting — especially if I wanted something from that person, or wanted them to like me — I bitterly resented it, and resented advertising for providing models of that type of encounter. I still sometimes wonder if what I call "believing more in myself" is a euphemism for "having enough confidence to be able to market myself." Perhaps one measure of maturity is learning to tell the difference.

Armed with all these reasons to hate advertising, I recently found myself assigned to write several articles about the advertising industry. Before I began interviewing, I expected to find overt, desperate cynicism in most of the people I met. But I am not the

"I could have positioned Dove," wrote David Ogilvy, "as a detergent bar for men with dirty hands. But I chose instead to position it as a toilet bar for women with dry skin."

first outsider to be charmed by advertising people talking about their work.

As advertising historian Stephen Fox said about his book, "I changed my mind during the three years I spent on *The Mirror Makers* (see review, p. 83). My original proposal was much more negative. The business is not as powerful as people think. And it's not as dishonest as people think."

To show how dishonest most people *think* advertising is, Fox cited a survey he'd read. He said 80 percent of Americans believe Wilson Bryant Key's "Subliminal Seduction" theory — that advertisers deliberately plant subliminal images of sex and death in their work. That theory is hogwash. Advertising people are so notoriously confessional that they could not conspire so broadly for so long, without anyone coming forward to admit they'd airbrushed a nude into an ice-cube, as has been claimed for one ad.

Advertising people and mass marketers are not deliberately villainous, but their attitudes have had a huge effect on the way we live — an effect that's hard to see, because we swim in it constantly. This article is an attempt to step out of the aquarium and gauge the color of the water. I talked to people in a variety of jobs: creative people, who write and art-direct ads; account executives, who sell the services of ad agencies to the companies that hire them; market researchers, who monitor consumers' reactions to products and advertising; media buyers, who purchase space in publications and time in broadcasting; and product managers, who run marketing campaigns. As I listened to them talk about themselves and their work, and as I read about the industry, I saw five general attitudes about the culture of marketing (which is the only culture we really know now) emerge again and again.

Chases Dirt
MAKES EVERYTHING "SPICK AND SPAN"

ATTITUDE 1

MARKETING IS WAR

The language of marketing itself comes right off the battlefield. "We launch a marketing campaign," wrote Al Ries and Jack Trout in *Marketing Warfare* (reviewed on p. 81). "We promote people to higher positions. In divits. We go into the field to inspect the progress of the troops." Ries and Trout admonished their readers to be even more warlike, quoting what they called the best book on marketing ever written: *On War*, by a Prussian general named Karl von Clausewitz, who wrote it in 1832.

The enemy in this war isn't customers — it's competitors. The audience is the turf across which the troops tramp. "The true nature of marketing today," wrote Ries and Trout, "involves the conflict between corporations, not the satisfying of human needs and wants." Marketers aim for market share. They fiercely advertise not so much to gain new territory as to prevent their competitor from gaining ground. If Pepsi advertises orange drinks, then Coke needs to also, to retain its cultural hegemony.

Instead of providing good service or even making a profit, the armies concentrate on being number one in sales in their field. You'd expect the spoils of victory to be profits, but since 1975 or so, the goal (often enough) is a good acquisition price — perceived value. So the company founders — who expect great personal windfalls when they sell their company — concentrate on building up market share, rather than profits, because that makes their company more valuable to acquirers.

Advertising people see themselves as the front lines in the marketing wars. They tell many stories of war-like heroics. In one typical story, a New York art director had a stroke one winter. He was hailing a cab, rushing to meet a routine deadline, when the stroke hit. As he fell, he bravely turned so that he landed in the wet snow, and his client's paste-up boards stayed dry.

SMOKEY
PREVENT FOREST FIRES!

ATTITUDE 2

WORK IS LIFE, LIFE IS WORK, THE WORK IS ALL

Advertising is a business without a tangible product, where almost everyone worries that a new competitor might come along any minute and be better than they are. The pressure to win and keep work has

Advertisers assume that people trust brands; and advertising managers take comfort in the fact that a solid brand image will outlive any individual human executive.

always been immense — as has been the competitive pressure within agencies.

A copywriter or art director might turn out 20 or 30 ads a day. Ad people routinely work nights and weekends, and often travel on location to produce commercials. They burn out spouses. Deadlines come frequently, and while you can turn down work, you're under pressure not to do so. More than one person talked about the inner stress that comes from drawing on your reservoir of creativity without taking time to replenish it. And several mentioned a 1959 *Advertising Age* report which said the average age of death for prominent ad people is 57.9 — ten years below the national average.

The flip side is that the work is fun. You'll hear creative people say, "I still can't believe sometimes I get paid for this." As David Lusterman, a self-described "soi-disant junk-mail writer" put it: "In white-collar work, there are very few places where people feel this kind of enormous pride of craft." Contrary to their image as backbiters, the advertising people I met talked about the joy of working with each other: in advertising you find sensitive artists, tasteful aristocrats, and hard-nosed businessmen, sometimes in the same person.

All that hard work leads to insularity. Ad people don't often have time to see anyone but each other. However, I heard very little of the self-importance or pretentiousness you might expect from people in such a close-knit field. Advertising people never seem to forget that their work is a game. They seek the same thrill from "beating the numbers" — getting a good response to an ad from market research surveys — that a video-game player gets from a high score.

Yet, even the busiest copywriter can't ignore the ironic result of all that ceaseless work; most of their ads show images of leisure, from barbecues to beach balls. "Maybe we're writing the mythical lives that we're not living," said one copywriter.

ATTITUDE 3

BELIEVING IN YOUR PRODUCT IS IRRELEVANT

Is it vital for those on an advertising team to believe in the product they promote? One or two of the advertising people I talked to would answer yes. But most would say no. Ad people have an affection for consumer products in general — the way that filmmakers can appreciate even a bad film, because they know what went into it. And ad people respect the fact that consumers like having different types of products available. But most of them frankly admit that there isn't much difference between two brands of beer, or even sometimes between two brands of car — except for the images that the ad people themselves create. "I could have positioned Dove," wrote David Ogilvy, "as a detergent bar for men with dirty hands. But I chose instead to position it as a toilet bar for women with dry skin."

Creating brands with solid images, in fact, is the basic strategy of mass marketing. Advertisers assume that people trust brands; and marketing managers take comfort in the fact that a solid brand image (like Star-kist's "tuna that tastes good") will outlive any individual human executive. A brand identity can be a rational promise ("Anacin gives fast relief") or a vague image ("Cowboys smoke Marlboros"). Brand images are intended to seep so thoroughly into the culture that they become unnoticed. Jay Levinson, a copywriter who also wrote the book *Guerilla Marketing* (*WER* #50, p. 93) once met a cab driver who insisted that advertising did not affect him. "What kind of toothpaste do you use?" asked Levinson. "Well, I use Gleam," said the cabdriver, "but it's not because of the advertising. It's just that I drive a cab, and I don't have *time* to brush after every meal."

Brand images don't have to be true — in fact, manufacturers usually prefer promises that put no pressure on them. Avis' famous "We're only #2, we try harder" commercials actually forced Avis to give better service. Crocker Bank found itself in a similar position in 1968. They advertised for young patrons (Paul Williams wrote the song "We've Only Just Begun" for that campaign), but were surprised to discover that young people don't have much money. Rather than change themselves to better serve people without much money, they discontinued the ad.

Advertising people don't believe in brands, and neither do consumers of many products. As Michael Shudson pointed out in *Advertising: The Uneasy Persuaders* (reviewed on p. 82), most Coke drinkers are also Pepsi drinkers. But marketers at the manufacturing companies don't have the luxury

Advertising people more commonly see themselves as scapegoats of the large corporations they work for. They are the ones who are expected to restore by advertising the gains that inept bureaucratic management lost.

of such nonchalance. To the companies that make them, brands have become what flags are to warring nations. Marketing people are under great pressure to salute, even at the highest levels; the president of Philip Morris gave up smoking, yet he smoked without inhaling at meetings to show he still believed.

One of the paradoxes of the industry is that marketing companies, like Procter and Gamble, resist hiring their own copywriters and art directors. They seem to feel that only the more dispassionate independent agencies can clearly focus on a product's appeal.

Another irony is that advertising people, while they don't believe in specific products, often use images they sincerely care for to sell products they feel indifferent about. Whoever conceived of Charlie Chaplin as a spokesman for IBM, for instance, probably didn't think all that much of IBM; but chances are, that person had a strong affinity for Chaplin. Peter Murphy, the creative director at Hal Riney & Partners, an influential San Francisco agency, wrote an ad for Dreyer's/ Edy's ice cream last year that came as close as I've seen to a description of utopia. Here's what the ad said:

"When we introduced Edy's Grand Ice Cream to towns and villages, some extraordinary things happened. A meter maid smiled and gave someone who needed a quarter a quarter. Baseball players asked the fans for their autographs. Hardly anyone forgot a birthday or an anniversary. All the flowers in all the flower shops were sold. The average age of someone with a balloon was 43. And generally speaking, it was the happiest people have been in a long time."

I talked with Peter Murphy about the genesis of that commercial. "We didn't want to show why Edy's is superior to other brands," he said. "We wanted to show how ice cream makes people feel." It became clear from our conversation (and Murphy later confirmed it, though not in these exact words), that he may think Edy's is good ice cream, but the view of human nature brought out in that commercial comes from a place much deeper in his soul.

ATTITUDE 4

THE CUSTOMER IS ALWAYS RIGHT

"The average American is as smart as — your mother. And she's no dummy. Consumers have heard all the stories and they know the good ones from the bad ones. You can't pull the wool over their eyes any more. It used to be easier, but people now have built-in B.S. detectors thanks to all the advertising they've seen."

— Jay Levinson

Copywriters used to be told to write so a 12-year-old could understand. But as Jay Levinson's quote suggests, advertisers and marketers now regard their audience with greater respect. Ad people sound more like the boys in *The Summer of '42*, talking about women, desperately wanting to score, unsure what approach will work. Perhaps it's significant that most heavy consumers are women (except for some products like cars, computers, and stereos), while most advertising people are still men (though that is changing). The business is a metaphor for seduction.

The basic tool of the seducer: know your target. At Leo Burnett, Jay Levinson trained himself to write a one-page biography of his targets before writing an ad. "I'd write that my reader's name's Donald Scott and he probably drives a '57 Dodge, and he works at a steel mill, and he's a foreman, and he's been there for seven years, and never got past high school — and I'd write a whole biography, so I got to really understand that person."

Renowned marketers usually have a pulse in synch with common folk. Many of them escaped from lower-class or rural backgrounds, but brought with them a special facility for selling to the people they left behind. Early copywriter Alfred Lasker was a classic example. Ernest Gallo, who marketed his small Modesto winery into the largest winery in the world, is another. Said Scott Miller, a former creative director for McCann-Erickson, who now works as a political consultant at his own firm, Sawyer/ Miller in New York: "The best marketers are inherent salesmen. They share the values of their audience and instinctively know how to talk to people in their own language. Ronald Reagan is the best marketing pro in the country. When someone asked why people like him so much, he said, 'Because I like *them*.' And the people who like him can sense that."

It used to be that every marketer had some common touch, because they could see their prospects across the counter. Now, those without it must rely on market research. The history of market research reads to me like a biography of Wile E.

When I first realised that every new acquaintanceship was at least something like a sales meeting, I bitterly resented advertising for providing models of that type of encounter.

Coyote — its methods get more and more sophisticated and "scientific" but its prey (the soul of the audience) continues to slip away. Or maybe I'd just like to believe that each of us has a core of individuality that market research can never touch.

The latest techniques include monitoring galvanic skin response of people watching TV, sifting through garbage, spying on customers in shopping malls, and (as reported in the *Wall Street Journal* in September) spending a whole day observing a "typical family." Add these to traditional methods like focus groups (get a dozen people to sit in a room and answer directed questions while you watch from behind a one-way mirror), shelf surveys, and questionnaires filled out by phone or in person. *Advertising Age* reported in November that $3.8 billion is spent on market research annually — almost a dollar for every person in the world.

What kinds of things do people learn from market research? Here's a simplified view of the two kinds of detergent users, from Mike Greenly (once a product manager at Lever Brothers): "Tide is a high-suds detergent. It makes lots of bubbles. Its users tend to be traditionalists, consciously using the detergent that their grandmothers used. When they lift up the lid of the machine and see the bubbles, they feel good — that they are good mothers, carrying on a tradition. The people who buy All, which is low-suds, are more modern. They understand that maybe the suds aren't so good for the machines, and they don't want suds sticking to the clothes. They like the idea of using less. You reach them on different shows on TV — a daytime soap opera for Tide, maybe, and for All, 'The Cosby Show' at night."

The most reliable market research is still done by becoming one's own customer. As a product manager at Avon, Mike Greenly was assigned to research whether the cosmetics giant should sell hair color. He felt he had to test it himself — a dozen or so hair colors in as many days — and became known around Avon as the man who turned his hair green. "But I knew why people bought hair color," he said.

Marketers end up with an exhaustive but somewhat superficial knowledge of their audience. As Mike Greenly admitted, his quick description of detergent users leaves out the majority of detergent users — who don't think so much about what they buy, and will just buy what's cheapest or most convenient. Eventually, I guess, the seduction of marketing can turn into a bad marriage. The marketer and audience come to know each other's habits so intimately that they take each other for granted. Then the marketer wakes up one day and finds a note saying the audience has run off with the importer down the street. That's how Detroit executives must have felt when Americans started buying so many foreign-made cars.

ATTITUDE 5

THE ADVERTISER IS INEPT

If you talk to advertising people candidly and privately, you'll occasionally hear them praise a company; I heard many ad people praise Gallo Wines for being tough and canny, for making good inexpensive wines, and for promoting those wines relentlessly. But such praise is rare. Advertising people more commonly see themselves as scapegoats of the corrupt, inbred side of the large corporations they work for. They are the ones who are expected to restore by advertising the gains that inept bureaucratic management lost. As David Lusterman said, "Just about everyone I have ever met in advertising has a deep conviction that the client doesn't know his own business."

Yet the bureaucracy of large clients has its counterpart within large ad agencies, which often have a half-dozen levels of creative directors, judging ad campaigns before they even *get* to a client. When these two bureaucracies mesh, with their dual chains of approval up the ladder, they encourage the decisions that are easiest to sell (and to justify with market research, because people in bureaucratic situations often trust numbers more than gut opinions). One result is the imitativeness of most advertising.

The effect of this double-helix bureaucracy is particularly devastating to the culture as a whole when it comes time for companies to buy media. Magazines are almost universally supported by the expectations of advertisers. Start-up magazines must depend on advertisers taking chances on the buying habits of an unproven audience. But they don't. And so our culture is impoverished by a lack of chancy, innovative broadcast and publishing.

Science 86, for instance, had a respectable 739,000 readers when it died this summer — for lack of advertising revenue. Even *Advertising Age* admitted, on November 10, that "advertiser wariness of the popular sciences proved to be its undoing." And the *New York Times* theorized that advertising people shied away from science magazines because they thought science readers are

By thinking of their work as warfare, advertisers make products and institutions around us more competitive with each other, and thus less responsive to the rest of us.

skeptical, and therefore not a good audience for ads. It's an effective form of censorship that turns trade magazines into uncritical cheerleaders in every industry. Worse still, it puts pressure on magazines to sell themselves as audience-catchers — to simplify themselves and even change directions to a more profitable reader.

CONCLUSION

This article, pulled from three months of conversation and reading, may seem overgeneralized to anyone who has worked in the field. But if I'd spent much time working in advertising and marketing, I probably wouldn't be as interested in its effects. I don't believe that marketers' attitudes really influence the attitudes of the rest of us that much; but the attitudes *do* influence the structure of the world we live in. In other words, the rest of us would probably be just as competitive at work, even if marketing people didn't think of their work as warfare. But by thinking of their work as warfare, they make products and institutions around us more competitive with each other, and thus less responsive to the rest of us.

As designed by Frank Munsey and his spiritual descendants, the culture of mass marketing is a logical extension of the industrial revolution. There are signs that the burgeoning popularity of computers and personalized communications — the Information Age — will change mass marketing. And perhaps it will. Mainstream advertising, for instance, is in an economic slump. Its more individualized competitor, direct mail, is becoming more respectable, and some consumer-product companies like Reynolds Tobacco are beginning to use it in place of mass-market advertising. As new television and radio channels multiply and advertisers squeeze commercials into shorter timespans (the 30-second commercial, once considered daringly short, is now standard), the audience is overloaded with messages. As consumers get overloaded, they get cynical about the truth of *any* sales pitch. This year, advertising trade magazines ran articles suggesting that the clutter of ads has finally overwhelmed its audience.

SRI International, the people who instituted the VALS system (see p. 96) and coined the term "Voluntary Simplicity" a decade ago, recently released a report called *Lifestyle Marketing*. Authors Charles Hampden-Turner and Franklin Carlile prophesied that advertisers, to win buyers, will have to promote products with intelligence and an awareness of the full range of buyers' needs. Though they didn't use this phrasing, it seems to me after reading their report that they suggest advertisers should promote products more like holistic health books and less like Anacin. This often means promoting to the narrower group of people that can use that product. That's the marketing concept of "narrowcasting," the idea that there are many small audiences, and in the Information Age, each one can be reached individually.

On the other hand, mass marketing is still far from dead. Global advertising campaigns (the same product, introduced the same way, everywhere) are at their highest popularity and still growing. Mass market ads are acceptable in new types of places — toilets, for instance. Young people, after 15 years of avoiding the advertising business (since the '60s), are now returning. (The Izusu ads in which a salesman tells obvious lies are the product of a 23-year-old mind. Can you tell?) The Statue of Liberty's birthday this year was used as a promotional tool, just as strongly as other such events (the space program, the Olympics) have been in the past. People are using mainstream advertising techniques for new types of businesses — adult education classes, for instance. Even the archdiocese of New York has an ad campaign, with the headline "Come home at Christmas."

I suspect that the culture of mass marketing will worm its way deeply into the fabric of the Information Age. I don't know what that will mean specifically, but the irritation and intrusiveness of advertising and marketing will not cease just because the media are more personalized. Probably, computers will allow direct-mail marketers to have almost the same level of responsiveness as a door-to-door salesman who constantly gauges your reactions. After you buy a VCR, you'll get electronic messages suggesting video tapes; after you buy an exercise tape, you'll get a message suggesting you eat at a health-food restaurant.

If there is an intelligent and unhysterical way for individuals to respond, it probably lies in building and maintaining communities. As Gary Snyder pointed out in his book *The Real Work*, "the reconstruction of a people and a life in the United States depends in part on people, neighborhood by neighborhood, deciding to stick it out and make it work where they are, rather than flee." The culture of marketing was the easiest alternative for those of us who fled (for whatever good reasons) during our early adulthood. Now I turn and look at my life, and realize that the imaginary world I fled to was as evanescent and malnourishing as electronic flickers on a video screen. ■

Marketing Without Advertising

Here are the best books I've found on the culture of marketing by insiders and outsiders. Some of them aren't really "useful," by the usual Whole Earth criteria; the best books on how to do your own marketing are ***Guerrilla Marketing*** *by Jay Levinson (**WER** #50, p. 93) and this one,* ***Marketing Without Advertising*** *(see also intro, p. 100). But all the books reviewed on the next three pages are valuable for understanding one of the widest-ranging, least understood "whole systems."* *—Art Kleiner*

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Handling Employee Complaints
Sample Employee Grievance Procedure
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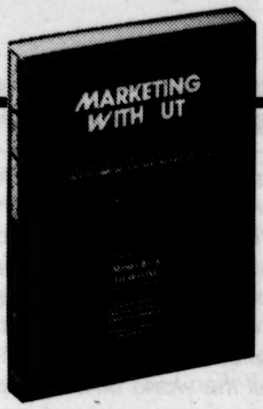

Marketing Without Advertising
Michael Phillips
and Salli Rasberry
1986; 200 pp.
$14
($15.50 postpaid) from:
Nolo Press
950 Parker Street
Berkeley, CA 94710
or Whole Earth Access

Small Business Owners and Their Behavior in Public
Openness — The Basis of Trust
Financial Openness
Physical Openness
Deciding How to Educate Potential Customers
How to Let Customers Know Your Business is Excellent
Give Your Customers Authority For Your Claims
    of Excellence
Helping Customers Find You
Make Sure People in Related Fields Know How To Refer
    Potential Customers to You
Telling Customers About Your Recourse Policy
Designing and Implementing Your Marketing Plan

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To look at the effectiveness of one of its marketing campaigns, one giant aircraft manufacturing company, which heavily advertised an in-house computer service through one of its subsidiaries, conducted a survey to find out how its latest 100 new customers found out about it. The results: 13% of these new customers came because of the advertising campaign, 23% because of sales calls, 56% signed up because of recommendations of other satisfied customers and professionals in the field, and 8% weren't sure why they chose that computer service.

Positioning • Marketing Warfare

Howls from the wolves of the marketplace.

"Positioning" caught on about 12 years ago as a marketing trend. To make your (probably undistinguished) product seem more distinct and unique, you aim at your competitor, not at your public. The classic positioning campaign was from Avis: "We're only #2, we try harder." But that campaign had substance — it forced Avis to shape up its service. More often, positioning is an image game in which the business competitors seek the chinks in each other's armor, while the public is the turf they trample on. In mainstream advertising, the positioning trend seems about to decline, but not before it influenced the methods of all types of business — and the way business is seen. You could accuse Smith and Hawken of positioning, for instance; by importing a small line of garden tools, they created an image "position" as the highest-quality importers of their kind. By contrast, you could say Whole Earth's financial problems come from lack of positioning — the magazine has consistently refused to hone in on one particular audience or point of view (to its credit, in my opinion).

Marketing Warfare*, by the same authors, is partly a disguised rehash of* ***Positioning*** *and partly an extended analogy between marketing and war.* *—Art Kleiner*
[Suggested by Jeff Elpern]

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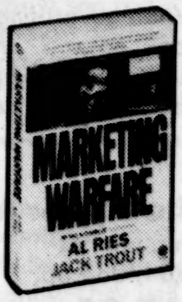
Ivory was a soap. It still is. When heavy-duty laundry detergents became available, the pressure was probably on to introduce Ivory Detergent. But this would have meant changing the position of Ivory in the prospect's mind.

A much better solution was Tide. Now the new detergent concept had a new name to match. And Tide became an enormous success.

Positioning
(The Battle For Your Mind)
Jack Trout and Al Reis
1986; 224 pp.
$4.50
($5.50 postpaid) from:
Warner Books
P. O. Box 690
New York, NY 10019
or Whole Earth Access

positioning

Marketing Warfare
Jack Trout and Al Reis
1987; 228 pp.
$8.95
($10.45 postpaid) from:
New American Library
P. O. Box 999
Bergenfield, NJ 07621
or Whole Earth Access



And when Procter & Gamble introduced a dishwasher detergent, they didn't call it Dishwasher Tide. They called it Cascade.

Each leading Procter & Gamble brand has its own separate identity: Joy, Crest, Head & Shoulders, Sure, Bounty, Pampers, Comet, Charmin and Duncan Hines. Not a Plus, Ultra or Super in the lot.

•

The classic mistake made by the leader is the illusion that the power of the product is derived from the power of the organization.

It's just the reverse. The power of the organization is derived from the power of the product. The position that the product owns is in the prospect's mind.

Coca-Cola has power. The Coca-Cola Company is merely a reflection of that power. *—Positioning*

Ogilvy on Advertising

Every industry should have a David Ogilvy — someone at the top of his field who sets down the precepts of his craft and business. ***Ogilvy on Advertising*** *is not a puffy piece of self-promotion like* ***Iacocca*** *(though Ogilvy does include a full-color photograph of the castle in France he retired to), but a nitty-gritty run-through of mainstream advertising's nuts and bolts. Like many eccentric, self-made magnates, Ogilvy has a lot to tell the world outside his own trade. These asides, whether you agree or not, are what make this book the closest thing to literature ever produced by an advertising man. —Art Kleiner*

Ogilvy on Advertising
David Ogilvy
1985; 224 pp.
$12.95
($13.95 postpaid) from:
Random House
Attn.: Order Dept.
400 Hahn Road
Westminster, MD 21157
or Whole Earth Access

OGILVY
ON
ADVERTISING

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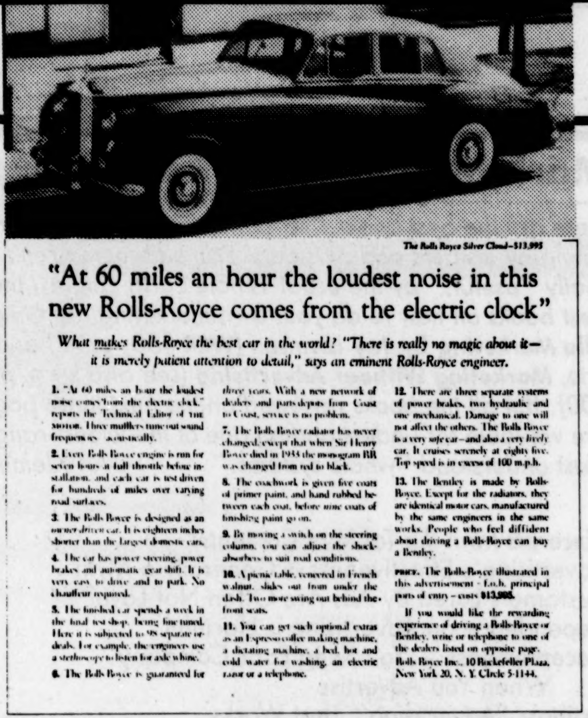
More often than not, campaigns which perform well in the United States perform equally well in other countries. The Esso tiger was a success in 34 countries.



The Rolls-Royce Silver Cloud—$13,995

"At 60 miles an hour the loudest noise in this new Rolls-Royce comes from the electric clock"

What makes Rolls-Royce the best car in the world? "There is really no magic about it— it is merely patient attention to detail," says an eminent Rolls-Royce engineer.

1. "At 60 miles an hour the loudest noise comes from the electric clock," reports the Technical Editor of THE MOTOR. Three mufflers tune out sound frequencies—acoustically.

2. Every Rolls-Royce engine is run for seven hours at full throttle before installation, and each car is test-driven for hundreds of miles over varying road surfaces.

3. The Rolls-Royce is designed as an *owner-driven* car. It is eighteen inches shorter than the largest domestic cars.

4. The car has power steering, power brakes and automatic gear-shift. It is very easy to drive and to park. No chauffeur required.

5. The finished car spends a week in the final test-shop, being fine-tuned. Here it is subjected to 98 separate ordeals. For example, the engineers use a stethoscope to listen for axle-whine.

6. The Rolls-Royce is guaranteed for *three* years. With a new network of dealers and parts-depots from Coast to Coast, service is no problem.

7. The Rolls-Royce radiator has never changed, except that when Sir Henry Royce died in 1933 the monogram RR was changed from red to black.

8. The coachwork is given five coats of primer paint, and hand rubbed between each coat, before *nine* coats of finishing paint go on.

9. By moving a switch on the steering column, you can adjust the shock-absorbers to suit road conditions.

10. A picnic table, veneered in French walnut, slides out from under the dash. Two more swing out behind the front seats.

11. You can get such optional extras as an Espresso coffee making machine, a dictating machine, a bed, hot and cold water for washing, an electric razor or a telephone.

12. There are three separate systems of power brakes, two hydraulic and one mechanical. Damage to one will not affect the others. The Rolls-Royce is a very *safe* car—and also a very *lively* car. It cruises serenely at eighty-five. Top speed is in excess of 100 m.p.h.

13. The Bentley is made by Rolls-Royce. Except for the radiators, they are identical motor cars, manufactured by the same engineers in the same works. People who feel diffident about driving a Rolls-Royce can buy a Bentley.

PRICE. The Rolls-Royce illustrated in this advertisement—f.o.b. principal ports of entry—costs **$13,995.**

If you would like the rewarding experience of driving a Rolls-Royce or Bentley, write or telephone to one of the dealers listed on opposite page. Rolls-Royce Inc., 10 Rockefeller Plaza, New York 20, N. Y. Circle 5-1144.

Before I wrote this — the most famous of all automobile ads — I did my homework. I spent three weeks reading about the car and came across a statement that 'at sixty miles an hour, the loudest noise comes from the electric clock.' This became the headline, and it was followed by 607 words of factual copy.

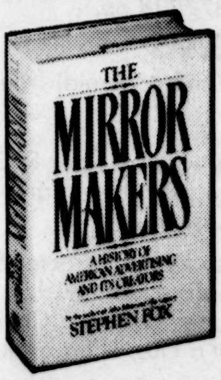
Reader's Digest has found that the *articles* which most interest Americans are the same articles which most interest Frenchmen, Germans, Italians, Dutchmen and Ruritaneans. Television commercials which demonstrated the good mileage you get with Shell were equally successful in the United States, Canada, Britain, Germany and Austria.

The Mirror Makers

Advertising, as its practitioners never tire of saying, is a "people business." This superior, well-written history tells about all the important people of advertising's first hundred years — from patent medicine matriarch Lydia E. Pinkham to Mary Wells, probably the shrewdest and most glamorous woman ever to rise to prominence in American business. Between those two women are mostly stories of men — admirable, vicious, philosophical and tragic men — plus a general story of cyclical boom and bust that illuminates the hidden roots of most American popular culture. (Advertising doesn't generate popular culture, by the way; it reacts to and reshuffles it.)

When advertising veteran Herb Briggs suggested this book, he said: "For a guy who hasn't spent his life in the business, the thing smells right. He says the right things about the right people, and draws the right conclusions." —Art Kleiner
[Suggested by Herb Briggs]

The Mirror Makers
Stephen Fox
1984; 383 pp.
$17.95
($18.95 postpaid) from:
William Morrow
& Company
105 Madison Avenue
New York, NY 10016
or Whole Earth Access



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Kennedy preached his advertising gospel with all the zeal of a convert. A Canadian, forty years old in 1904, at one time supposedly a member of the Royal Canadian Mounted Police, Kennedy broke into advertising as ad manager of the Hudson's Bay department store in Winnipeg in the 1890s. . . .

Instead of merely drawing customers to the store, Kennedy now asserted, an ad should say in print precisely what a good salesman would say face-to-face to a customer. Instead of general claims, pretty pictures, or jingles, an ad should offer a concrete *reason why* the product was worth buying. Not charming or amusing or even necessarily pleasing to the eye, a good ad was a rational, unadorned instrument of selling: "True 'Reason-Why' Copy is Logic, plus persuasion, plus conviction, all woven into a certain simplicity of thought — pre-digested for the average mind, so that it is easier to *understand* than to *misunderstand* it."

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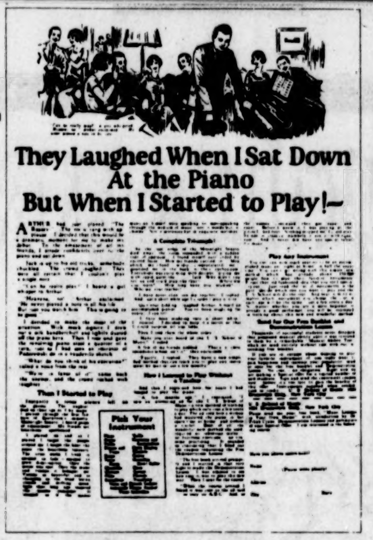
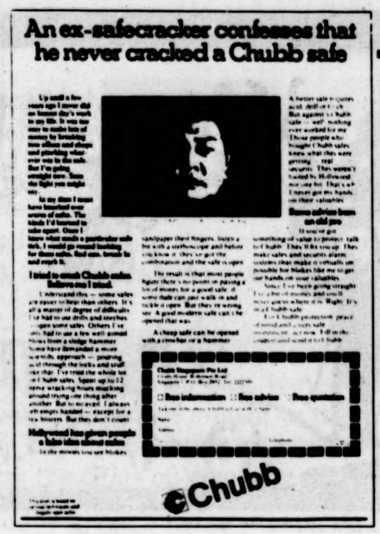
In these early days — the "Golden Age" of television — the lines were blurred between ad agencies and TV networks. Many top executives shuttled back and forth between the two, changing jobs but using the same skills and contacts. With radio broadcasting as the only available model, most TV shows were produced and controlled not by a network but by an agency for a single sponsor. Shows typically bore the name of the advertiser, not the star: *Kraft Television Theater, Goodyear TV Playhouse, Texaco Star Theater.* While the sponsor and agency took charge of content, the network usually provided only facilities, air time, and occasional censorship. . . .

The system of agency production and single sponsors had particular advantages. Given one advertiser and a show title often bearing its name, viewers associated a favorite show with its sponsor and — because of a "gratitude factor" — would buy the products. In 1953 twenty shows enjoyed a "sponsor identification" rating of 80 percent or better; in radio, 60 percent was considered exceptional. A star in such a stable situation might take extraordinary liberties with his advertiser. Alfred Hitchcock was famous for leading into commercials with comments ranging from sly ("Oh, dear, I see the actors won't be ready for another sixty seconds. However, thanks to our sponsor's remarkable foresight, we have a message that will fit in here nicely"), to snide ("And now as a service to you television addicts who are trying to give it up, here, before I return, is something that will certainly do the trick"), to graphic (during a shipboard story: "I feel I must move to the rail; we are about to have one of our commercials"). Bristol-Myers resisted these jabs at first, but found they helped both sponsor identification and sales. After all, Hitchcock maligned not the product but the ad.


They Laughed When I Sat Down At the Piano But When I Started to Play!—


An ex-safecracker confesses that he never cracked a Chubb safe

(Left) don't write essays. Tell your reader what your product will do for him or her, and tell it with specifics.

Write your copy in the form of a *story*, as in the advertisement which carried the headline, 'The amazing story of a Zippo that worked after being taken from the belly of a fish.' One of the most famous advertisements ever written was by John Caples for International Correspondence School, under the headline 'They Laughed When I Sat Down at the Piano — But When I Started to Play . . .'.

(Right) testimonials from celebrities get high recall scores, but I have stopped using them because readers remember the celebrity and forget the product. What's more, they assume the celebrity has been *bought*, which is usually the case. On the other hand, testimonials from *experts* can be persuasive — like having an ex-burglar testify that he had never been able to crack a Chubb safe.

Advertising: The Uneasy Persuasion

Many people passionately hate advertising and marketing, without really knowing why. They should read ***Advertising: The Uneasy Persuasion****. It subtly debunks all the foofaraw about advertisers as conspiratorial manipulators of the public — and then it tells what's really going on: "Advertising is capitalism's way of saying 'I love you' to itself." No wonder advertising feels so icky to those of us who aren't similarly infatuated.*

I read this book midway through my research for "The Culture of Marketing" (p. 74) and suddenly everything crystallized into perspective. —*Art Kleiner*

Advertising: The Uneasy Persuasion
Michael Schudson
1984; 288 pp.
$8.95
($10.45 postpaid) from:
Basic Books
10 East 53rd Street
New York, NY 10022
or Whole Earth Access

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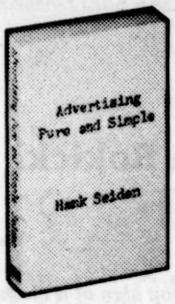
To the extent that there is an answer to the problem of whether, in the aggregate, advertising causes sales, the answer seems to be no, sales cause advertising. And business practice ensures that this will be so. Field experiments varying the amount of advertising and measuring the results on sales have been relatively rare. Especially rare are experiments that dare to *lower* advertising expenditures below current rates. In a number of these cases, including a celebrated set of experiments at Anheuser-Busch for Budweiser beer, reducing advertising expenses actually led to *increases* in sales. It is very likely that many firms spend more on advertising than, for their own best interests, they should.

Advertising Pure and Simple

First, read "Advertising Doesn't Work" (p. 100). Then, if you decide you still must write ads for your own small business, start here. Written by "one of the few ad men who enjoys helping young people get started in advertising," this is also recommended for people seeking jobs as copywriters. Author Hank Seiden began his ad career before television, and implies that advertising should have stayed there. That print-oriented approach makes this a good book for learning how to persuade in writing with taste and skill. Seiden pretty much leaves the ethical dilemmas for you to resolve for yourself, except for two: he says cigarette and liquor companies should be allowed to advertise on television, but political candidates should not.

If you like to read advertising "confessions" by insiders (as I do), the annotated bibliography is worth the price of this book. —*Art Kleiner*

Advertising Pure and Simple
Hank Seiden
1978; 198 pp.
$7.95
($9.95 postpaid) from:
American Management Association
P. O. Box 1026
Saranac Lake, NY 12983
or Whole Earth Access



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The first step, when creating any ad or commercial, is the most critical: Jot down, as two guidepoints, what you're trying to say and the audience you're trying to say it to. If you can't compose one or at most two sentences summing up the key point of your ad, then you're simply not going to be an ad writer. Go to bartender school.

•

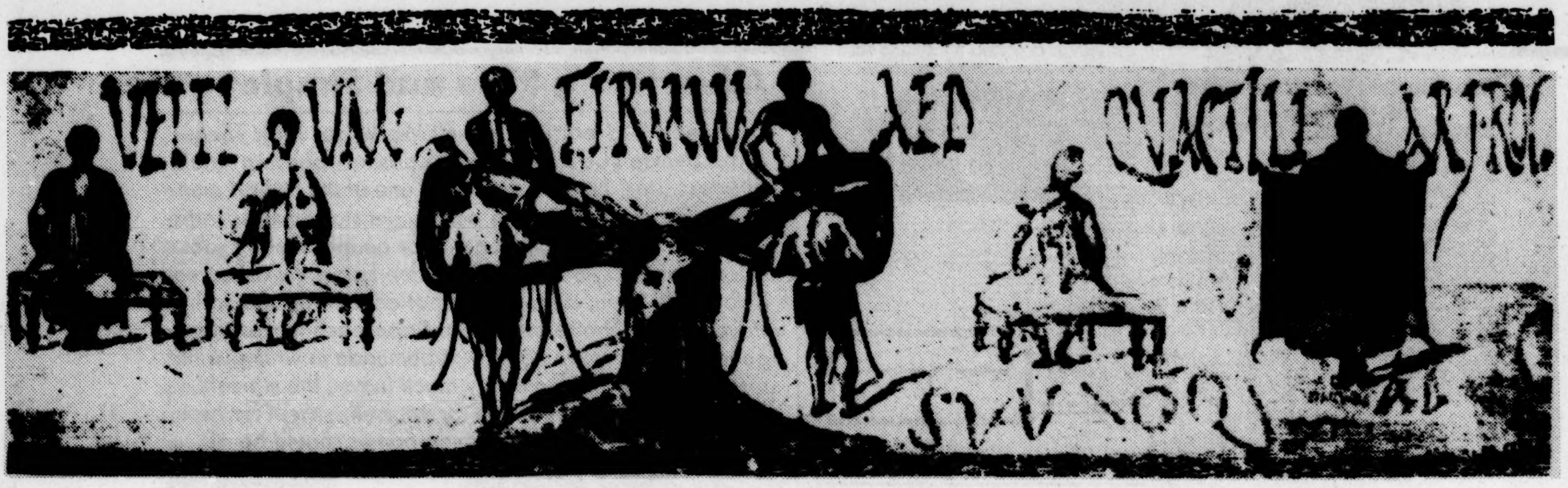
At one time all commercial tuna fish was pink. A new company came on the scene with a white tuna — a tremendous disadvantage, wouldn't you say? — in a market used to pink tuna. The white tuna people didn't think so, and advertised their tuna as guaranteed not to turn pink, thereby implying that something was wrong with pink tuna. They made all the other guys see red. How's that for turning a disadvantage into an advantage? They did it so well that all tuna marketed since then is white.

•

The availability of national brands provides a protection for consumers who move to a new community. Most of the goods they will find in local stores will be the same goods they knew in their previous community. They will be more open to advertisements suggesting where to buy, but they will be able to rely on past experience for deciding what to buy. In this respect, national advertising serves as a form of consumer protection.

•

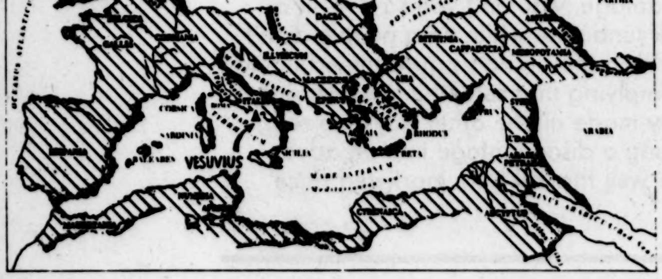
In time-famine cultures, rational behavior may *appear* irrational. For instance, when time is short, "impulse buying" may be the most rational shopping strategy. It is more rational to make an occasional mistake than to spend precious time collecting information to make a better judgement. Advertising, too, takes on greater importance — and greater value for the consumer — in a time-scarce society. Advertising may provide "quasi information for people who lack the time to acquire the genuine insights." Advertisers simultaneously close the information gap by providing information and exploit the information gap that remains by using noninformational persuasion.



ADVERTISING IN THE ROMAN EMPIRE

by John Rokicki

(Above) the shop sign of a cloth factory and salesroom of one M. Vecilius Verecundus of Pompeii. The sign pictures the production process and includes an election advertisement: **VETTIUM FIRMUM AED (ILUM) QUACTILIARI ROG(ANT)** *— "Feltworkers support Vettius Firmus as aedile."*



At the time of the burial of Pompeii and Herculaneum, the culture of the Roman Empire marketplace extended to the shaded areas shown here. Mount Vesuvius lies about 120 miles southeast of Rome.

Most of us assume that advertising is an industry born in recent years. Wrong. Here's an article that places such "modern" advertising practices as market positioning, brand names, and political advertising solidly in the Roman Empire, 2000 years ago.

John Rokicki, a former Latin student and currently a copywriter at DDB Needham Worldwide in Detroit, assembled this as a master's thesis at Fairfield University. We first saw the thesis mentioned in an article in Advertising Age, *contacted Rokicki, adapted the manuscript for this issue, and followed his leads for finding the pictures. —Art Kleiner*

THE TERM "ADVERTISING" has been defined through a commonly agreed-upon modern explanation ("a paid form of promotion with an identifiable sponsor, intended to produce an action in the audience"). Throughout this article, advertising and other terms will be used to describe ancient Roman activities. I will also use the terms "public relations" (somewhat glibly defined as "doing good and telling others about it) and "marketing" ("that part of business concerned with price, product, promotion, and distribution").

Most research for this article centers on archaeological findings in the Italian cities of Pompeii and Herculaneum. The writings of Pliny the Younger indicate that Mt. Vesuvius erupted on August 24, 79 A.D., and buried these two cities.

The director of excavations at Pompeii in 1860, Giuseppe Fiorelli, is credited with the true preservation of Pompeii. Because of the careful excavations, instead of being left to the elements and treasure hunters, Pompeii and Herculaneum are a unique source of information, especially in terms of the written word.

Though the destruction of the two cities occurred more than 1900 years ago, this was far from a primitive society. It included a large population of middle-class workers, including fullers, tanners, bankers, dry cleaners, innkeepers, shipbuilders, merchant seamen, jewelers, mule drivers, potters, teachers, fruit sellers, goldsmiths, fishermen, actors, athletes, miners, glassblowers, civil servants, carpenters, blacksmiths, police, firefighters, candlemakers, oil merchants, barbers, butchers, tailors, and weavers.

Many of these people were clients in the advertising business — people seeking assistance in promoting their goods and services. Just as today, the area with the greatest diversity of clients was consumer goods — products for mass consumption such as food, clothing, and health and beauty aids. A considerable amount of activity went into the manufacturing, importing, and selling of such consumer goods. As part of that activity, a complex advertising business flourished. While we cannot say for sure, it is likely that the Roman Empire was the cradle of advertising and marketing, where many of the practices of advertising as we know them now were developed.

The traditional date of the founding of Rome by Romulus is the year 753 B.C. Around 117 B.C., during the reign of the Emperor Trajan, the Roman Empire stretched from what is now Portugal in the west to the border of Scotland in the north, to Egypt in the south and to Saudi Arabia in the east.

The literacy and expansion of the empire, along with the development of the Roman political system, triggered a move from small, self-supporting farm communities to cities, which meant competition and diversification in commerce.

From at least as far back as the third century B.C., leisure travel by ship and horseback was possible for Romans. That people could afford leisure travel and do it without great risk helped create tourism both as an industry and as a booming import/export business. Money was another factor contributing to this commercial development. The coining of money occurred at least as early as the first half of the third century B.C. The reliance on currency instead of barter, and the establishment of stable wages and prices, had a tremendous impact on commerce.

Over time, the Roman labor pool developed to include both skilled and unskilled workers in a wide variety of trades, including art. Just as today, artists of all types played a large part in ancient advertising — including writers, painters, sculptors, mosaicists, actors, and poets.

PRODUCTS

While beer was available in the Roman Empire, wine was a more popular drink and was marketed with techniques similar to those used to sell beer today. At least 200 different brands of wine have been found throughout the empire; more than 50 in the cities of Vesuvius alone.

Most vintages were branded — given a name — ranging from a simple description (*Vinum rubrum* meant red wine), origin (*Creticum excellens* meant excellent wine of Crete), age (*Rubrum annorum quatuor Ampliato* meant four-year-old red for Ampliatus), winery name (*M. Fabi Eupori Cnidum* meant wine of Marcus Fabius Euporus), or a characterization (such as frenzy wine).

Another popular product of the day was a fish sauce called *garum*. It was made by mixing the entrails of sprats or sardines with finely chopped portions of fish and roe — pounded, crushed, and stirred. The mixture was literally beaten to a pulp and left in either a warm room or the sun to ferment. After about six weeks of evaporation, this liquamen was put into a basket. What filtered through the cracks and into the decanters was garum.

Garum was apparently in favor throughout the Roman Empire and was sold under a wide variety of brand names:

- Best liquamen, for Aulus Virnius Modestus, from Agathopus
- Quality strained sauce
- Scaurus' tunny jelly, blossom brand, put up by Eutyches, slave of Scaurus
- 100 Percent Pure Garum of Scombrius Fortunatus (foreshadowing Ivory Soap's 99$^{44}/_{100}$%)
- Best hallex of Vibia
- Garum, essence of the best mackerel, from the shop of Agathopus

Even today, in many noncapitalist societies, most products are not advertised. They are packaged in containers labeled cheese or milk or butter. But Romans understood advertising and used it to try to make their brands seem unique.

POSITIONING AND MARKETING

Positioning means establishing a niche in the marketplace for a product — finding a unique position for your product in a crowded field, so the product's purpose will fit comparatively few people's needs instead of trying to be all things to everyone. That is why Federal Express, for example, is not positioned as a delivery service directly competitive with UPS or Purolator, but only as the most dependable "when it absolutely, positively has to get there overnight."

Ancient wine merchants were smart marketers. Just as American beer importers do today, ancient merchants understood the value of a product labeled "import." An ad for a tavern in Pompeii reads in part, "If you will have given the sum of two asses, you will drink better wines; if you will have paid four, you will drink Falernian wines."

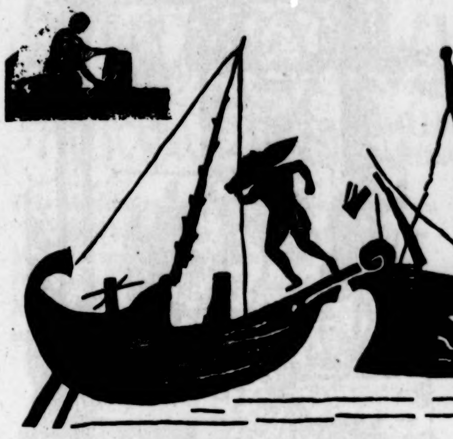
SERVICES

Just as with products, competition for the consumer *denarii* was fierce. People had a choice of where to go for baths, drinking, dining, lodging, and banking. In Pompeii alone, at least 1,300 shops have been discovered, along with 30 inns.

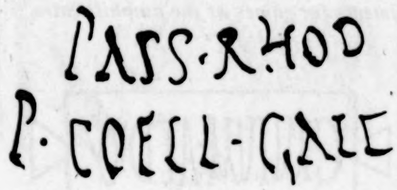
A walk down a typical Pompeiian commercial street would show signs for such businesses as "the quick surveyor," "Publius Cornelius Faventinus, barber," "Phoebus the perfume dealer," "Cresces the architect," and "Marcus Vecilius Verecundus, the tailor/clothes dealer."

The baths are a particularly well-documented aspect of ancient Roman leisure-time activities. Most were fairly large operations like modern health clubs, with either fresh or salt water baths and rooms for changing, relaxing, and being oiled. At least one water area would be heated. The typical Roman went to the baths almost daily, and spent the time alternating between the *frigidarium* and the *laconicum*.

Promotion for the baths included a complete listing of facilities, and occa-

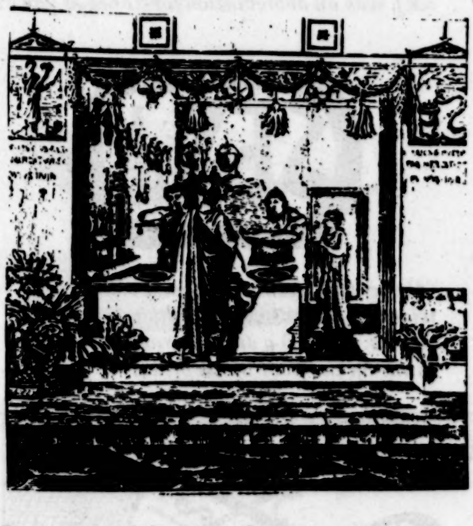


Small mosaic ads for shipping services in Ostia. The corner mosaic shows grain being carefully measured. The larger mosaic shows wine being transferred from a seagoing ship to a riverboat.

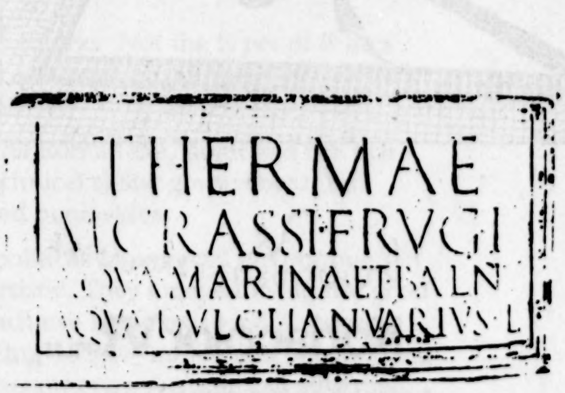


PASS·RHOD
P·COELI·GALE

A typical wine label: **passum Rhodium, P. Coeli Galli** *— "raisin wine of Rhodes, (bottled for) P. Coelius Gallius."*

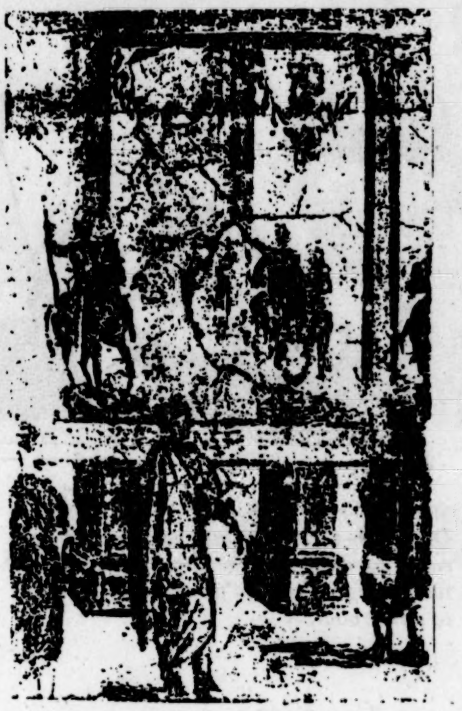


Reconstructed drawing of a Roman fast-food restaurant with high-visibility signs outside.



THERMAE
M·CRASSI·FRVGI
AQVA·MARINA·ET·BALN
AQVA·DVLCI·IANVARIVS·L

Formally inscribed advertisement touting the "Baths of Marcus Crassus Frugi. Sea water and fresh water bathing. Janarius, freedman."



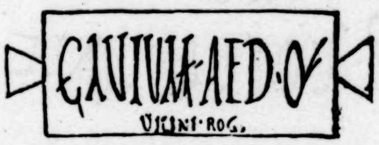
A Pompeiian painting of men reading advertisements for games at the amphitheatre.

sionally a boastful advertising statement about quality. The Villa of Julia Felix in Pompeii, for instance, described itself as "good enough for Venus," quite a statement in a population which worshipped the gods.

Advertising for bars, restaurants, and hotels was generally limited to shop signs, although at least one example exists of a sign located on the way to the amphitheatre, suggesting that patrons stop by after the show. While some signs were rather straightforward, many used beautiful illustrations and persuasive words. One innkeeper's sign read *Hospitium: hic locatur tricinium cum tribus lectis et commodis omnibus*, or "Inn: here is located a dining room with three couches and all conveniences." At the cloth factory and salesroom of M. Vecilius Verecundus was a lovely sign showing the entire clothmaking process. A carved relief at a butcher shop in Ostia shows the scales used to weigh meat. At a gambling house in Pompeii, a stone relief was painted with four phalli in red (it was a brothel, too) and a grey dice beaker against the dark background.

There were also point-of-purchase signs for specific products. One example of wine promotion at the point of sale is a large and attractive sign outside a tavern. It bears the inscription *Ad cucumus*, or "Come to the sign of the bowls," and contains an illustrated wine list with the range of prices.

The two most popular forms of entertainment during the Roman Empire were public games and plays. Particularly good examples exist of ads for the games. There is even evidence of programs (*libellus*), as well as paintings of toga-clad men reading the advertisements for upcoming shows — the Roman equivalent of a newspaper's entertainment listings. In addition to the number and kinds of combats, promoters advertised special inducements, as in *vela erunt* . . . ("awnings will be provided").

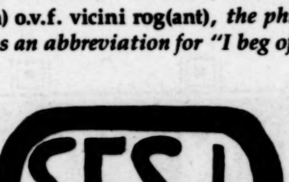


A bumper sticker-like advertisement translated as "His neighbors request the election of Gavius as aedile." In Latin, **Gaavium aed(ilem) o.v.f. vicini rog(ant),** *the phrase* **o.v.f.** *was an abbreviation for "I beg of you."*

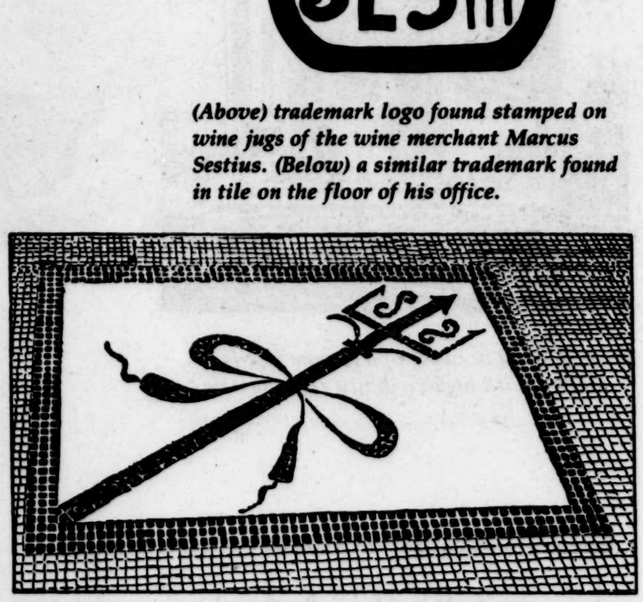
POLITICAL ADVERTISING

We have numerous examples of Roman political advertising because the eruption of Mount Vesuvius took place while many election "posters" were still up. More than 1,600 election advertisements supporting more than 100 different candidates have been found in Pompeii.

Some election advertisements had no sponsor: *P FVR II V VB O VF* was the abbreviation for "Publium Furium duumvirum, virum bonum, oro vos, facite," translated as: "Make Publius Furius *duumvir*, I beg of you; he's a good man." Others were sponsored by a business, group, or private citizen. *M. Holconium Priscum II vir. i.d. pomari universi cum Helvio Vestale rog.* translates as "All the fruit sellers, together with Helvius Vestalis, urge the election of M. Holconius Priscus as *duumvir* with judicial authority."



(Above) trademark logo found stamped on wine jugs of the wine merchant Marcus Sestius. (Below) a similar trademark found in tile on the floor of his office.

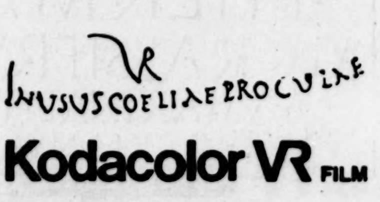


TRADEMARKS AND LOGOS

The ancient Romans were sophisticated in the packaging of goods, especially in the use of trademarks. One is the logo used by the wine merchant Marcus Sestius, whose wine ship was excavated off the coast of Marseilles, France in the 1950s. His final journey was thought to have been around 230 B.C. More than 7,000 wine jars were recovered, each with the same stamp. It had a trident next to it, the mark of Neptune or Poseidon, god of the sea: a fitting mark for a wine dealer who travelled throughout the Mediterranean.

A good trademark must connect the symbol with the business at a glance and communicate some fundamental information about the business. In Marcus Sestius' case, it was clear his business was the sea. His mark was also found on land in similar form. On the Aegean island of Delos, thought to be his home port, was found a mosaic on a house floor with the SES pattern, this time with the trident forming the E.

A wine jug found in Pompeii carries the trademark *Vr in usis Coelia Proculae*, in which *Vr* stands for "Vinum rubrum." The mark translates as "Red wine for the enjoyment of Coelia Procula." Many trademarks did not use "proper" Latin. The use of abbreviations and the combining of letters was an accepted practice, rather than a slang, much as we in English would be comfortable with such terms as "Inc.," "OK," or "etc." in an ad.



A wine label which reads **V(inum) R(ubrum) in usus Coeliae Proculae,** *or "red wine for the enjoyment of Coelia Procula." Note the similarity of the "VR" graphic device to Kodak's.*

The combining of letters, in this case V and R, is an attractive design element. It has a much different look than the letters simply placed next to each other. And it's a practice that continues today. A recent introduction of a new Kodak film designated VR carries much the same design.

Scriptores (literally, signpainters) were primarily responsible for the work (election signs, shop signs, announcements of games) that has been found throughout Pompeii, Herculaneum, and Ostia. Working sometimes alone, sometimes with assistants, they created some very handsome advertising.

Several signed their work. One announcement ends with *Scr(ipsit) Aemilius Celer sing(ulus) ad luna(m)*, or "Aemilius Celer wrote this, all alone by the light of the moon." Scriptores were thought to be a class of scribe, who, under Diocletian's edict, were paid 20 or 25 denarii per 100 lines written. For the sake of comparison, a haircut was two denarii, and carpenters were paid 50 denarii per day. Whatever their class and income, the scriptores had no shortage of work, especially during a campaign season. They closely resembled the art director in the modern advertising community.

Scriptores (sometimes called *signatores*) solicited and serviced clients, created advertising, arranged for its placement, and carried out the production process. They usually worked at night, assisted by a *dealbator*, or whitewasher, and a *lanternarius*, or lantern-holder. Their primary medium was the wall, which by whitewashing could be used over and over again.

Scholars place all Latin inscriptions in one of three categories. The first is formal inscriptions, usually done on stone, often commemorating public works projects or private acts of charity. The second category is graffiti (literally, "scratches") — less formal engraving, particularly numerous in Pompeii. The third category is *dipinti*, or wall paintings. This category usually included the election notices and announcements for games.

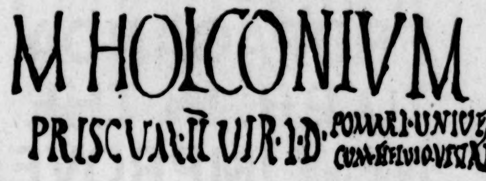
As you can see from the accompanying illustrations, many of the dipinti used typographical features normally considered generic to modern advertising. In its most basic form, a printed advertisement consists of a headline, body copy, illustration, and signature. These four elements and their classic arrangement as a large headline, followed by an illustration, smaller body copy, and then a still smaller signature, are not part of instinct or genetic coding. Developing this format was a learned process, and it may have begun here on the walls of the Roman Empire.

In *De Oratore*, Cicero relates an incident involving rival firms competing for a construction contract. When both were summoned to speak before elected officials (who could give out the contract), the firm that hired an orator to speak for it, won.

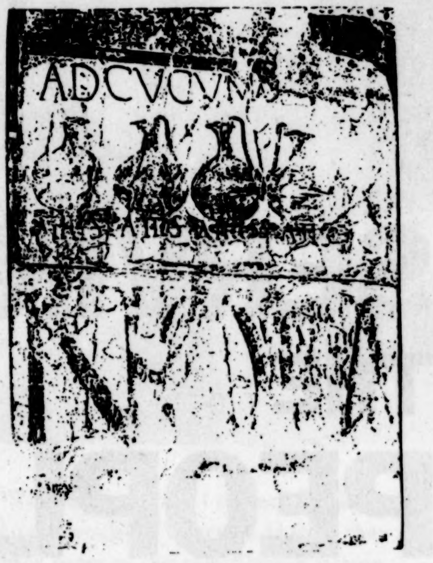
Orators were people who spoke for a living, usually on the behalf of others, like public relations people today. Like orators, many ancient Roman writers occasionally mixed advertising with their philosophy. The poets Martial and Horace mention specific brands of wine in their work, and even Virgil is accused of this act.

The poet Horace: *Nec purpurarum sidere clarior delenit usus nec Falerna vitis*, which translates as: "Purple brighter than the stars nor Falernian (wine) soothes a grieving man." Another Horace slogan was: *Festo quid potius die Neptuni faciam? Prome reconditum Lyde, strenue Caecubum*, which translates as: "What would I rather do on the festival of Neptune? Come on, Lydia, hurry and bring forth the stored Caecubian (wine)."

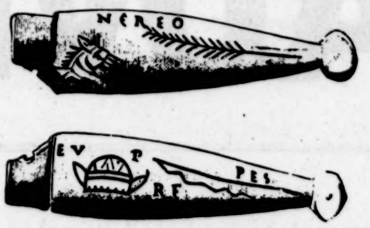
The games at the amphitheatre used promotions such as programs, special inducements like awnings, and premium items like lamps with the images of gladiators upon them. Athletes and celebrities were often used to endorse products or for their merchandising value. In Ostia and in Rome, for example, archaeologists found handles of pocket knives inscribed with the head and name of a horse, Nereos, and his jockey, Euprepes.



This election advertisement is translated as, "All the fruit sellers, together with Helvius Vestalis, urge the election of M. Holconius Priscus as duumvir with judicial authority." Note the layout, which anticipates the elements of a modern headline with body copy.



A catalog of wines showing various brands and prices. It says Ad Cucumas — "Come to the Sign of the Bowls."



An example of sales promotion from the Roman Empire — a penknife with the name of a charioteer and his horse.

POSITIONING. Feature/benefit copy strategies. Outdoor advertising. Trademarks. Not the types of things one would ordinarily expect an archaeologist to dust off carefully at an excavation site. But that's precisely what has happened.

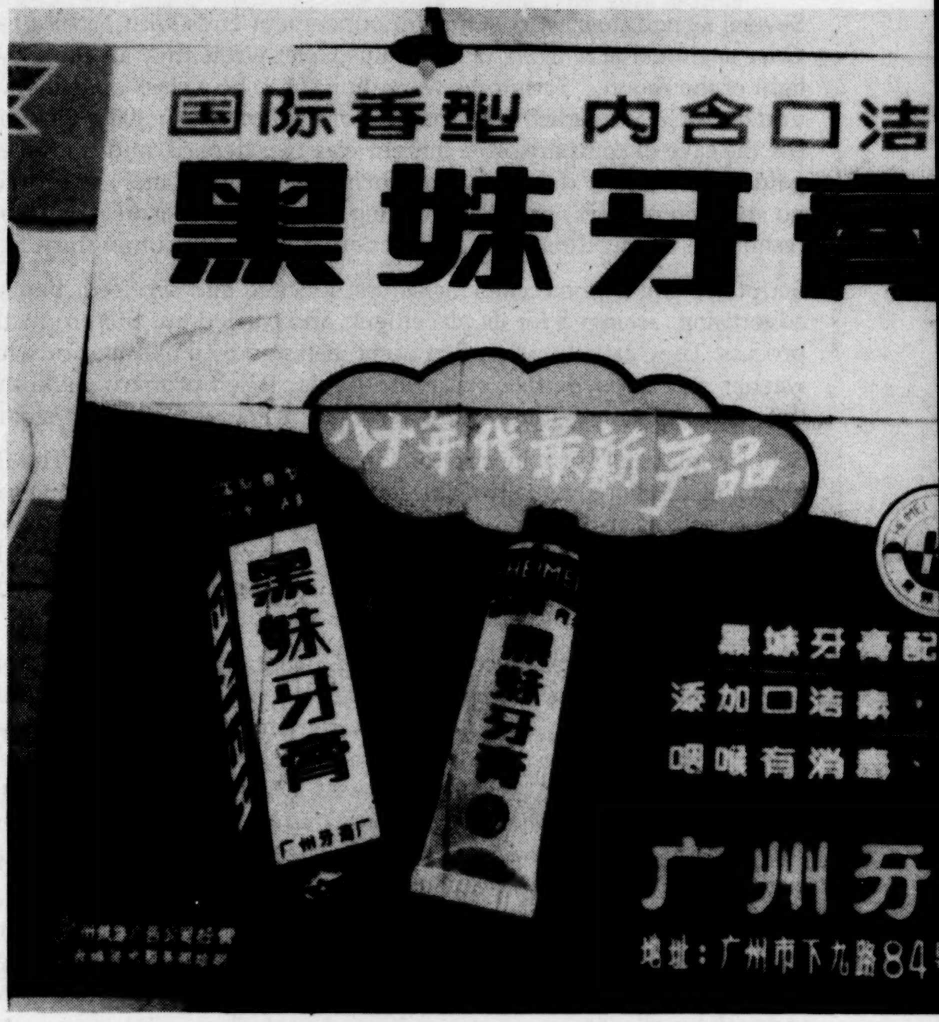
While there were other civilizations that existed — indeed, flourished — before the Roman era, none had the marketing climate of this empire. Others had coined money, developed language, technical skills, government; but nowhere else do we find the abundance and acceptance of advertising and related businesses.

It may have had as much to do with the Romans themselves as with the social/political/commercial environment in which they lived. They were, by and large, a highly literate people. They were artistic. They enjoyed living the good life. In a way that was perhaps not possible in other old cultures, people could achieve some measure of respect, relative wealth, and improvement of their status through commerce. By capitalizing on new trends and out-thinking competitors, by building better mousetraps and using a new communications phenomenon we now call advertising, the Romans achieved all of these, and greatness too.

If it were possible for a Roman merchant or scriptore to walk into a modern advertising agency, their portfolio of work would look dated only in terms of radiocarbon dating. Their style, freshness, persuasion, and originality would win a few awards. ■

PROPAGANDA TO P.R. IN THE NEW IMPROVED CHINA

BY ORVILLE SCHELL



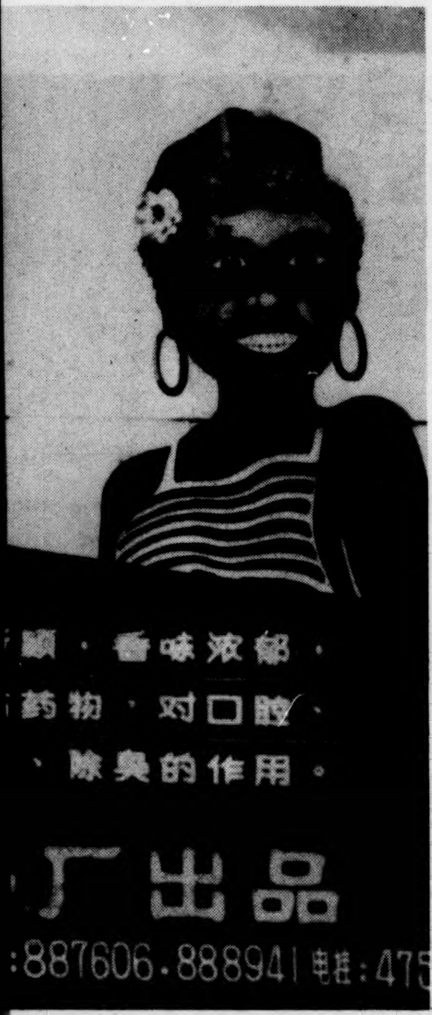
SERVING THE PEOPLE WITH ADVERTISING!

FOR ANYONE who first came to know the People's Republic of China when Mao Zedong still lived, the changes wrought by Deng Xiaoping's new policies seem almost like a dream. The speed with which China has been transformed from a closed socialist society railing against the imperialist West to a country which is not only increasingly open to the West but even respectful of the dynamism of capitalism, leaves one almost breathless. So swiftly and quixotically has China changed that it now defies almost every label. Like the Roman god Janus, whose two faces expressed his fundamental ambiguity between being human and divine, China now seems to embrace so many contradictions that it is difficult to ascertain just what it really stands for as a nation and where it is going.

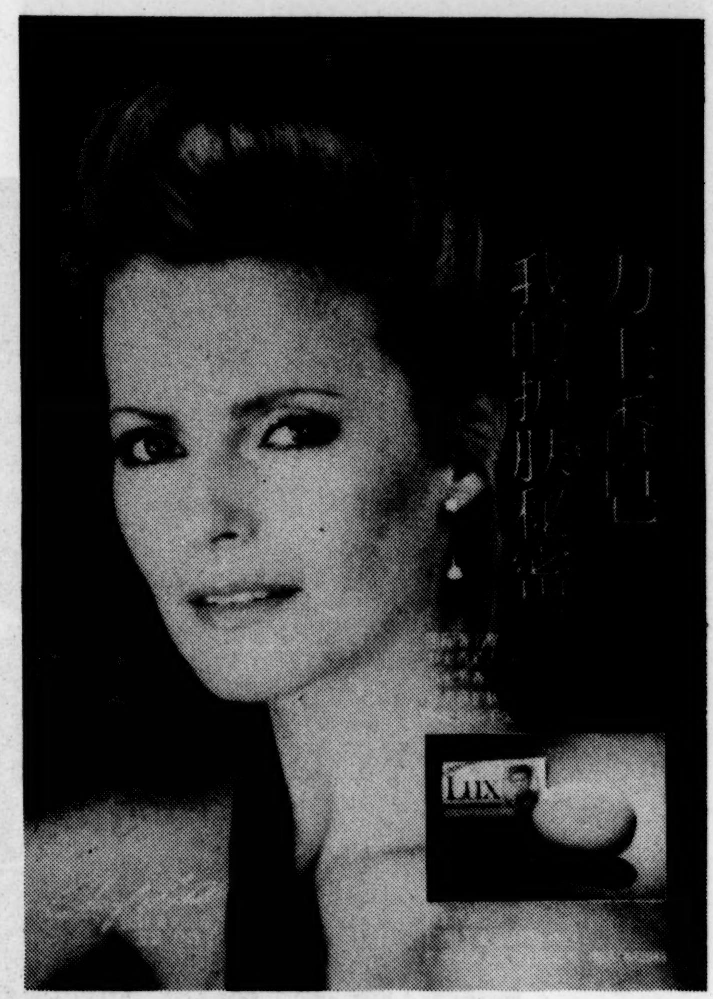
All the distinctions of the past that made China such a vigilant and militant defender of revolutionary purity have now blurred. East vs. West, socialism vs. capitalism, revolution vs. counter-revolution, the proletariat vs. the bourgeoise, class struggle vs. social harmony; all the contradictions that China once treated as absolute now seemed to be merging into a new and curious form of hybrid ideology which has no name. Nowhere is this blending of opposites more evident than in the way that socialist political propaganda is being transmogrified into capitalist-style advertising.

Before Deng Xiaoping came to power, and the new liberal economic reforms set forth at the Third Plenum of the Eleventh Party Central Committee in December 1978 began to take effect, there were no advertisements in China. The public promotion of material goods was considered a corrupt practice indulged in by the capitalist bourgeoise to make profit by selling goods to the exploited masses. The only billboards one saw in Maoist China were either inscribed with quotes from Chairman Mao, Marx, Lenin, and Engels, or emblazoned with depictions of heroic, rosy-cheeked model socialist workers serving the people or struggling against oppressors. These socialist ads exhorted people not to buy, but to think correct thoughts, fight against counter-revolutionaries, and build a socialist motherland.

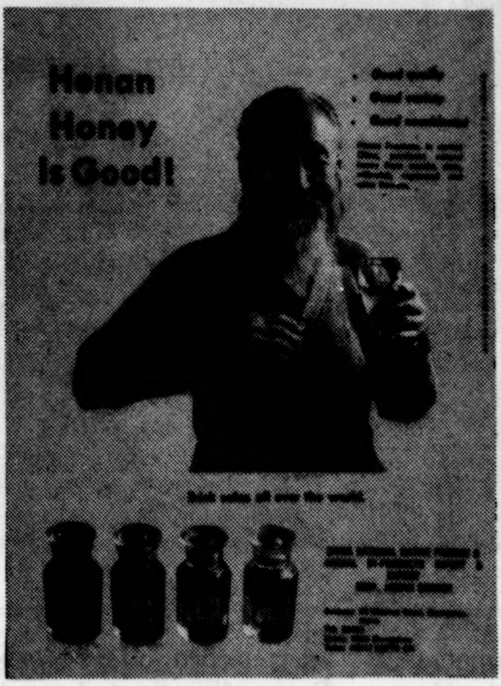
And so, it came as quite a surprise when commercial advertisements, many of them from large foreign corporations clamoring to get back into the China



Prominently displayed near the Canton train station was this billboard for "Li'l Black Girl" brand toothpaste, touted as "the newest product of the '80s."



"The secret of how I protect my skin is Lux," proclaims Cheryl Ladd from the back pages of this new Chinese fashion magazine. Whereas once China reviled almost everything western, now ads using foreign movie stars and models abound in China. In fact, almost anything that is foreign or "yang" now has an automatic cachet, so that even domestic manufacturers seek to identify their products with foreignness as a means of selling more.


Henan Honey Is Good!

This ad for honey, which appeared on the back of a recent issue of *Beijing Review*, expresses perfectly the still naive state of the indigenous art in China.

market, suddenly began to appear on billboards, on television, and in magazines and newspapers. Behind this advertising renaissance lay not only profound change in China's political policy, but in its perception of itself. After decades of collectivization and de-emphasis of the individual, the Party discovered the bracing tonic of capitalist techniques such as giving more decision-making power to individual factory managers, granting bonuses to give workers greater incentives, encouraging competition among enterprises to enliven the marketplace, and encouraging advertising to stimulate consumption and production.

By 1986 even Party General Secretary Hu Yaobang seemed so accepting of these dramatic changes that he praised capitalism, saying that it "has many positive effects on the state of the economy and on the quality of life. We will not be able to do without it for a considerable period."

With the notion of profit suddenly made respectable again, large city billboards, which were once the exclusive preserve of Mao quotes, began to bloom with ads for Japanese ghetto blasters and refrigerators, French perfume and cognac, American colas and airlines, as well as for a whole host of domestically made goods, fueled by China's new consumerism and young people's interest in owning "the eight big things": a color TV, a refrigerator, a stereo, a camera, a motorcycle, a couch, a washing machine and an electric fan. But it was the foreign commercials that led the way, serving as a kind of visual training course for the Chinese advertising revolution which followed.

The first foreign commercial to appear on Central China Television (CCTV) was a 1979 spot for the Westinghouse Corporation. It was an historic moment which signalled in the most dramatic way that China was once again open to such capitalist commercial messages. Rates for foreigners to advertise on national TV were $10,000 U.S. per spot. (Domestic advertisers were offered a considerable reduction at $1400.) These rates were not bad considering that since 1985 production of TV sets increased by 65 percent, so that one of every ten people in China was an owner, for a total of roughly 100 million sets.

Other foreign corporations eager to establish an early beachhead in the newly opened China market quickly followed suit, creating an anomalous situation in which many Chinese found themselves more

孚德
FUDE
孚德靴鞋厂
中国青岛
FASHIONABLE STYLE EXQUISITE
WORKMANSHIP COMFORTABLE
ELEGANT LOOKING
电话:25303

interested in the slickly produced foreign commercials than in the locally produced programming itself.

Then, in 1982, CBS Productions began negotiations with the Chinese, finally signing a path-breaking deal with CCTV in which they traded 60 hours of American programming for 320 minutes of commercial air time. China got (among others) such shows as "Muggable Mary: Street Cop," a four-part animated Dr. Seuss special, "Count Basie in Concert," "Quarterback Princess," several segments of "Sixty Minutes," a National Basketball Association game, and the Tournament of Roses Parade. China also got commercial messages from such American corporations as Procter and Gamble, Boeing, Kodak, IBM, Stauffer Chemical, and Weyerhauser. When Super Bowl XX was shown on Chinese television last winter, a different host of American companies such as Nike, Hewlett-Packard, and McDonnell Douglas made national commercial appearances. To serve this new market, two major U.S. ad agencies — Young & Rubicam and Ogilvy & Mather — set up China operations.

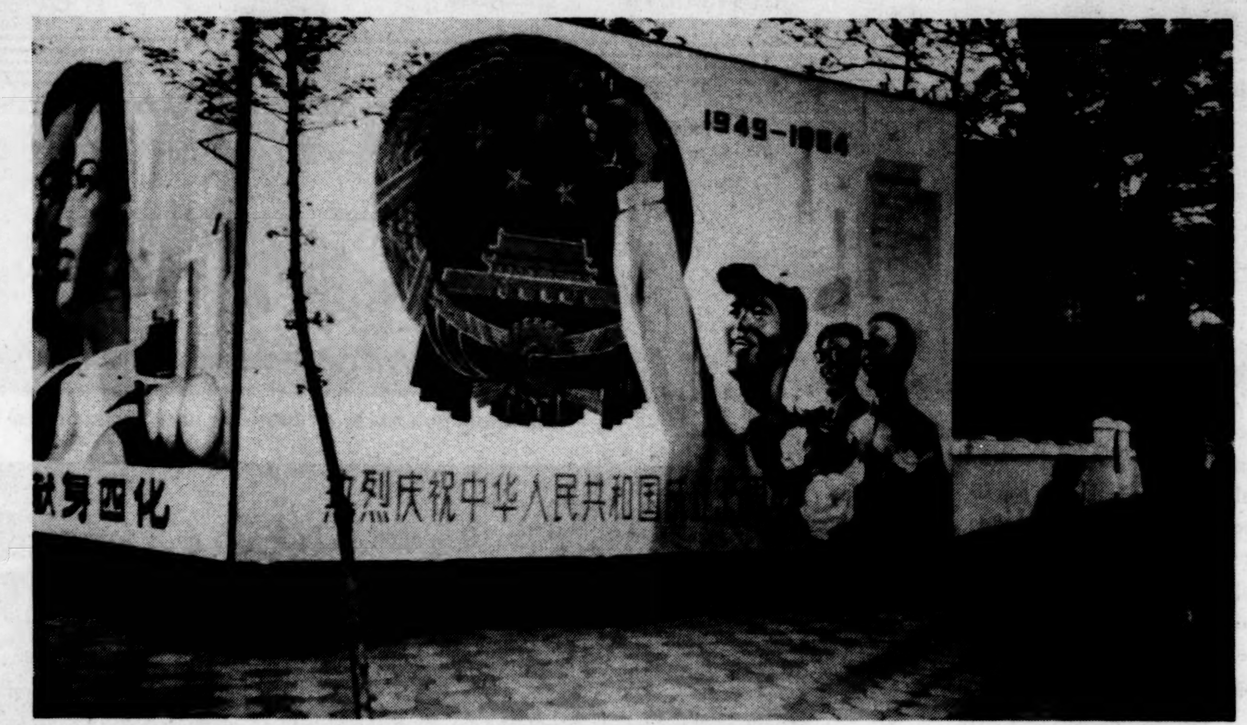
Between 1979 and 1985, Chinese advertising revenues more than doubled each year. Of course, advertising was not limited to billboards and television. Recognizing that there was big money to be made, Chinese radio and print media quickly began to carry ads as well. With enterprises of all kinds no longer able to rely on endless government subsidies, media managers needed to find new ways to make income. Even politically stodgy publications like the official Communist Party newspaper, *The Peoples' Daily;* the Party's main theoretical organ, *Red Flag;* and the English-language weekly, *The Beijing Review,* suddenly began consecrating whole pages to commercials for such products as Blue Sky toothpaste, Wuxi Air compressors, Leaf brand tote bags and Flying Pigeon brand bicycles, often displayed alongside a comely young female comrade in designer jeans and permed hair from one of China's newly established modeling schools.

The People's Daily, once the bastion of Marxist rectitude, charged foreign corporations $6800 U.S. per 10-centimeter column to bring word of their product to the Chinese masses. Billboards on busy Beijing street corners got as much as $50 U.S. per square meter per month. In a country where hard currency was difficult to come by, advertising was a temptingly easy and lucrative way to profit.

The appearance of these enticing new Western commercials in China had an immediate and contagious effect. Not only did they provide the Chinese people with their first seductive visions of the outside world, but they shocked indigenous captains of commerce and industry by showing them what they had been missing by way of power to promote their own goods and services. And so, after slumbering for almost 30 years, the advertising age was reborn in China.

I photographed this billboard showing a model in designer jeans sporting Prestigious Virtue shoes in Qingdao, Shandong Province (where the beer is made). English is often used as an adjunct in such ads not so much to enable foreigners to understand the text, but as a hallmark of modernity and classiness which more and more has come to be associated with the West.

Compare this ad to the old-style billboard below, which harkens back to the days before commercial advertisements aiming at selling things began to supplant political propaganda designed to elevate the consciousness of the masses with ideological slogans and stalwart socialist heroes. This one celebrates the 35th anniversary of the People's Republic of China.



New agencies such as the China Advertising United Corporation, with offices in over 25 Chinese cities, began to open throughout China. Numerous joint ventures began to be set up between foreign ad agencies and Chinese counterparts. In June 1987, the China National Advertising Association for Foreign Economic Relations and Trade will even host an advertisers' congress to which over 1,000 delegates from around the world are expected to come.

"The results, so far, have been impressively effective," Jia Yubin, secretary of the recently established China Advertisement Association said recently, going on to note that the new ad campaigns had helped many ailing businesses rebound by increasing "name recognition" and boosting "consumer choice."

Although by 1986 expenditures for advertising in China still only constituted 0.03 percent of the gross national product or $0.10 per person (compared with 2 percent and $200 per person in the U.S.), this was nonetheless a quantum leap forward for a country which only a few years earlier had spent virtually nothing on advertising.

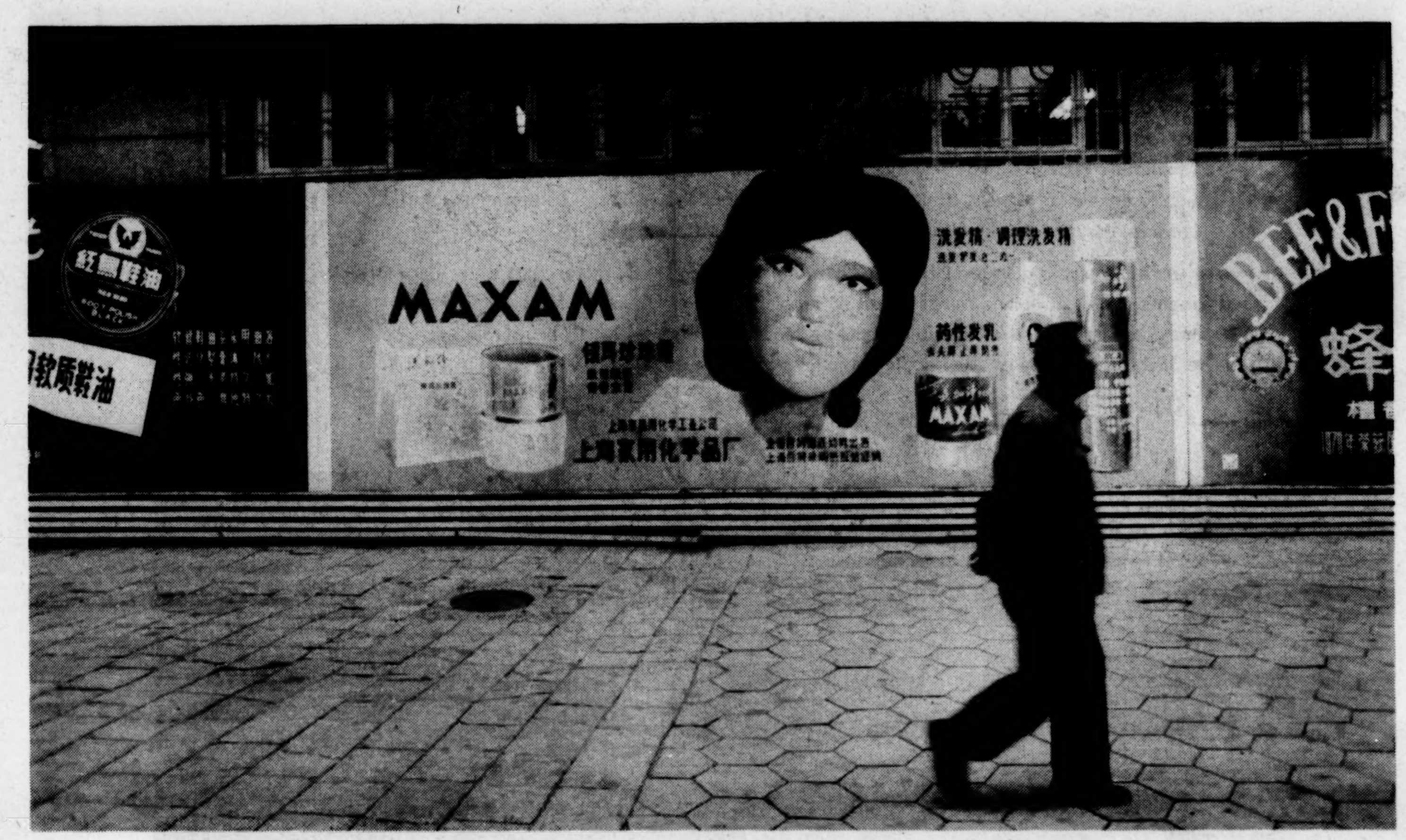
Public relations, a close blood relative of advertising, has also begun staging a comeback in China. The first Chinese PR firm opened in Peking in 1983. In southern China, which is strongly influenced by Hong Kong across the border, hundreds of large and medium-sized enterprises have started to hire full-time PR managers. Last year even the official New China News Agency set up a public relations arm called China Global, which promptly signed an eight-year joint venture with The Burson-Masteler Corp., the largest international PR firm in the world.

Other foreign giants such as Hill and Knowlton have also opened offices in China. And although PR is still a far cry from what it is in the West, the seeds have now been sown in China, and the phenomenon is spreading. For instance, Guangzhou's Zhongshan University has just set up a PR research group as well as a night school. A PR Club has been started in the southern Chinese province of Guangdong, and is reported to already have eight branches.

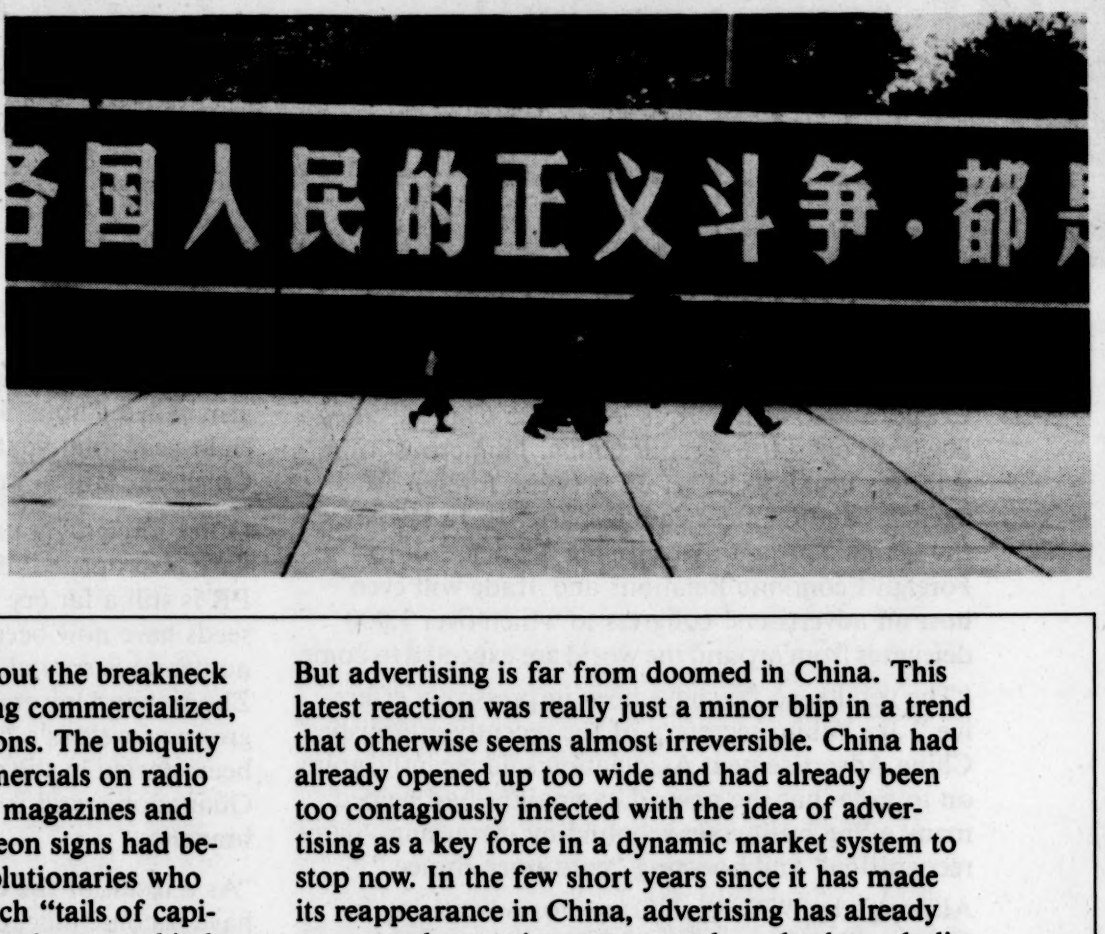
"As a result of the economic reforms, businesses have become independent economic entities which must pay attention to public relations in a bid to build up good image, broaden their influence and promote their economic performance," *The Economic Daily,* China's most authoritative financial paper, recently proclaimed.

"To become a qualified member of society every enterprise must engage in an effort to improve its image," echoed a writer in a new Chinese publication called *Market,* sounding more like a Madison Avenue account executive than a good communist.

Where all this is leading is hard to say. When I was in Peking last September, the Party seemed to be



Some streets in urban China not only have an occasional billboard, but non-stop ads from one end to the other. This series in Shanghai for Maxam brand cosmetics is on the city's main shopping street, Nanjing Road. Although once virtually banned in China, women's cosmetics have recently become a major growth industry.

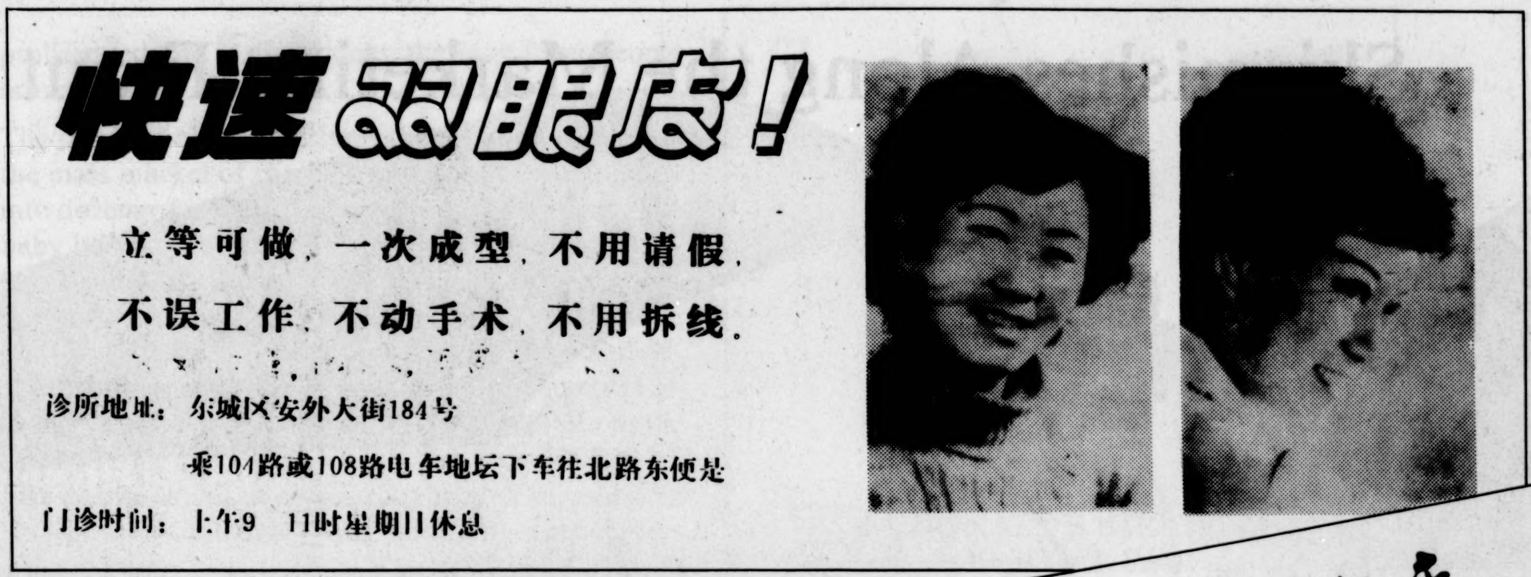


I took this photo (right) at the airport in Taiyuan, Shanxi Province, almost 12 years ago. It is an example of the kind of old-fashioned political slogans that were ubiquitous in China when "politics was in command" under Chairman Mao. It says, "The just struggle of the people of each country in the world is our own."

having some second thoughts about the breakneck speed with which China was being commercialized, particularly by foreign corporations. The ubiquity of billboards in the streets, commercials on radio and television, advertisements in magazines and newspapers, and newly erected neon signs had begun to offend many old-line revolutionaries who spent their lives opposing just such "tails of capitalism," and who now feared that these new kinds of "spiritual pollution" would derail China from its sacred task of "building socialism." Some students in Peking even demonstrated against what they called the "second occupation of China," alluding both to Japan's present aggressive business posture and its occupation of China during World War II.

After what must have been an interesting intra-Party debate, an enormous Sony ad — which had replaced a Mao quote on Beijing's busiest street corner opposite the Beijing Hotel a few years ago — suddenly vanished to be replaced by a distinctly Chinese-style encomium to the PRC's latest five-year plan.

But advertising is far from doomed in China. This latest reaction was really just a minor blip in a trend that otherwise seems almost irreversible. China had already opened up too wide and had already been too contagiously infected with the idea of advertising as a key force in a dynamic market system to stop now. In the few short years since it has made its reappearance in China, advertising has already come to play too important a role — both symbolic and practical — in China's new liberalized economy to turn back the clock. There are too many products to be sold and too much money to be made to scuttle advertising at this late date. Lest one doubt it, one has only to look at a new 466-page book recently published in Hong Kong. Entitled *Advertising and Marketing in China; Past, Present and Future,* this no-nonsense volume costs $280 U.S., and tells prospective traders everything they need to know about doing business and getting their product before Chinese consumers in what was once known as "Red China."



快速双眼皮！

立等可做，一次成型，不用请假，

不误工作，不动手术，不用拆线。

[illegible]

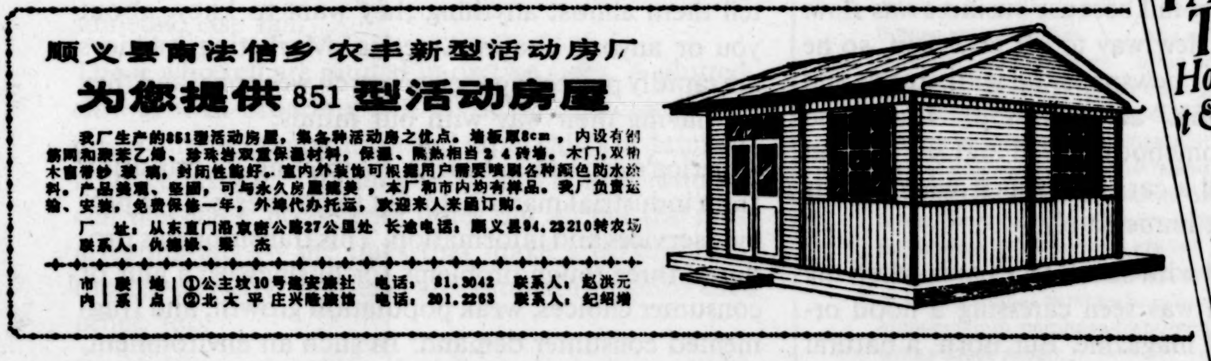
诊所地址：东城区安外大街184号

乘104路或108路电车地坛下车往北路东便是

门诊时间：上午9 11时星期日休息

I recently found this flyer, for a small private cosmetic surgery clinic, posted in Beijing. The headline says, "Get An Eye Job Done Quickly! We do it while you wait [!]. Eyes completely redone in one visit. No time off from work necessary. No heavy surgery needed." The surgery makes the eyes look larger. The ad goes on to note that the clinic also elevates noses and removes acne scars.

What was arresting about this ad was: 1) that it illustrates the degree to which private enterprise has returned to China; 2) the way Western notions of beauty have returned; 3) the degree to which Chinese now quite openly concern themselves with such things as their own looks and fashion rather than the interests of the commonweal.



顺义县南法信乡 农丰新型活动房厂

为您提供851型活动房屋

我厂生产的851型活动房屋，集各种活动房之优点。墙板厚8cm，内设有钢筋网和聚苯乙烯、珍珠岩双重保温材料，保温、隔热相当24砖墙。木门，双钢木窗带纱玻璃，封闭性能好。室内外装饰可根据用户需要喷刷各种颜色防水涂料。产品美观、坚固，可与永久房屋媲美，本厂和市内均有样品。我厂负责运输、安装，免费保修一年，外埠代办托运，欢迎来人来函订购。

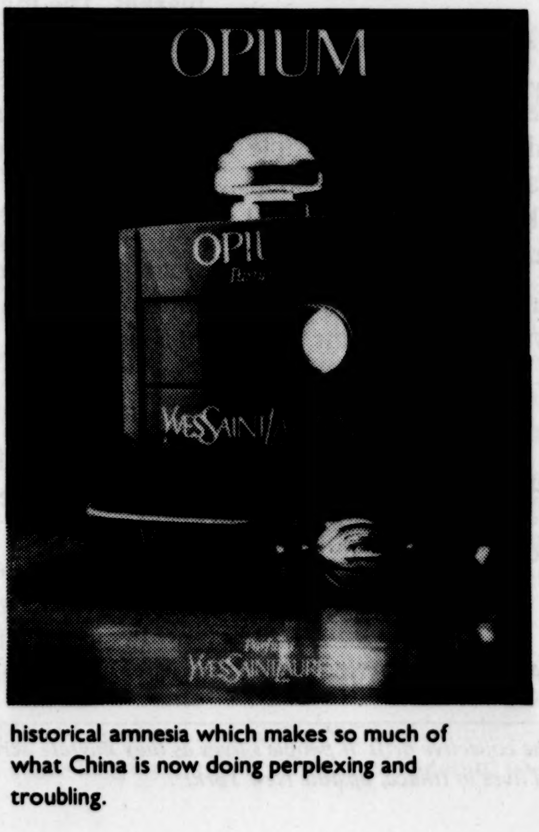
厂　址：从东直门沿京密公路27公里处 长途电话：顺义县94.23210转农场

联系人：仇德缘、梁　杰

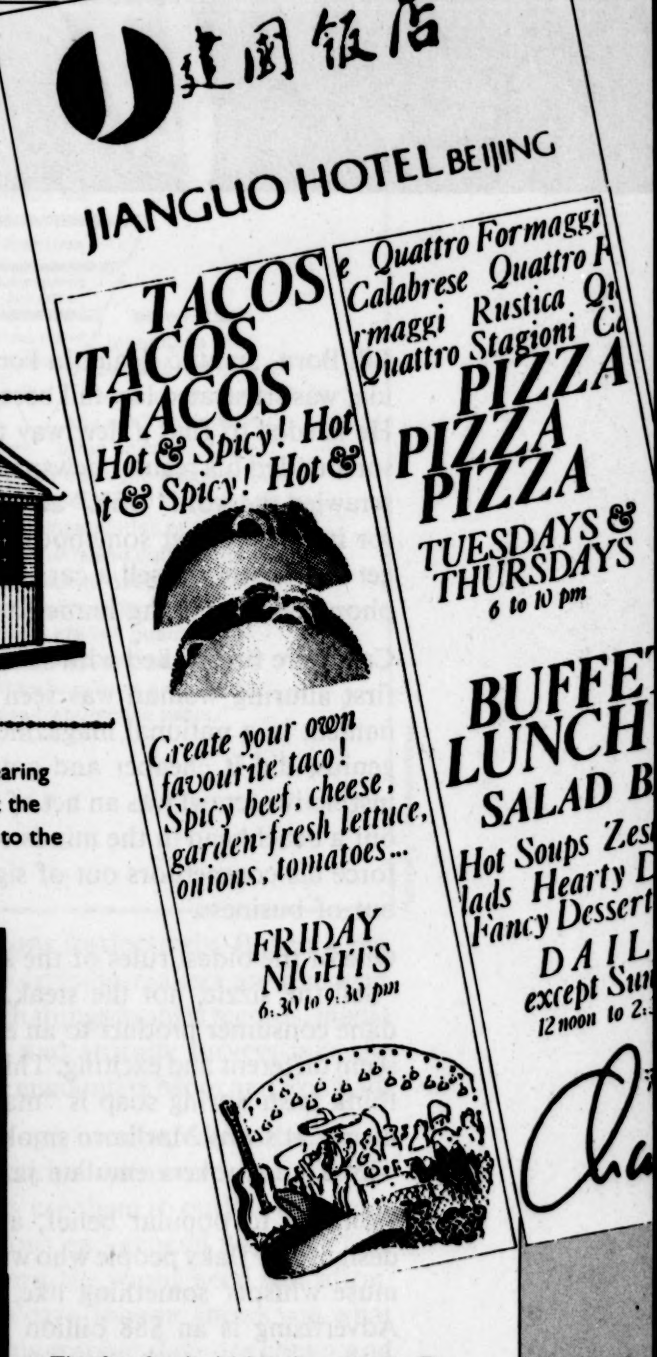
市内联系地点｜①公主坟10号建安旅社 电话：81.3042 联系人：赵洪元

②北太平庄兴隆旅馆 电话：201.2263 联系人：纪绍增

Ads such as this one for prefabricated movable houses and small buildings have recently been appearing in newspapers all across China. They suggest not only China's new fixation on instant housing, but the way in which advertising is being used as a commercial information service to bring new products to the attention of consumers, in both the state-run and new private sectors of the economy.



Of all the ads I have come across in China, none has been quite as arresting as this one for Opium perfume, which I found in the in-flight magazine of China's government airline, C.A.A.C. Of all incidents in Chinese history, there are surely few confrontations with the West which are more sensitive than the Opium Wars. In the 1840s, the Western powers went to war with China in order to secure their right to sell opium to the Chinese in violation of an imperial prohibition. Defeated and humiliated in these wars, the Chinese were forced against their will to open ports up and down the coast not only to the opium trade, but ultimately to foreign diplomats, residents, missionaries and traders of every kind. That the government should now allow such a highly symbolic and provocative ad to be run in the official publication of the state-owned airline suggests the kind of confusion of identity and historical amnesia which makes so much of what China is now doing perplexing and troubling.



建国饭店

JIANGUO HOTEL BEIJING

TACOS
TACOS
TACOS
Hot & Spicy! Hot &
t & Spicy! Hot &

Create your own favourite taco!
Spicy beef, cheese, garden-fresh lettuce, onions, tomatoes...

FRIDAY NIGHTS
6:30 to 9:30 pm

e Quattro Formaggi
Calabrese Quattro F
rmaggi Rustica Qu
Quattro Stagioni Ca

PIZZA
PIZZA
PIZZA

TUESDAYS & THURSDAYS
6 to 10 pm

BUFFE
LUNCH
SALAD B
Hot Soups Zest
lads Hearty D
Fancy Dessert
DAIL
except Sun
12 noon to 2:

This fast-food ad (above) was run in *The China Daily,* China's English-language newspaper. It was placed by one of Beijing's new foreign-run hotels, which cater to Western businessmen and tourists. To my knowledge it is the first manifestation of taco-and-pizza *kultur* in the People's Republic. But in China these path-breaking foreign ads often have a curious ripple effect on Chinese society itself, so that it may not be long before the first Hunan-Mexican restaurants pop up in the Capital. ■

Skirmishes Along the Marketing Front

BY BRAD EDMONDSON

Bill Born, an auto dealer in Fort Walton Beach, Florida, was frustrated last fall because business was slow. He needed to find a new way to get attention, so he surrounded his regular newspaper ad with arrows and scrawled the word "SEX" across the top. "The reason for it is just to get somebody to call and see if I can get a prospect, to sell a car" he said. It worked. His phone began ringing immediately.

Cars were first linked with sex decades ago, when the first alluring woman was seen caressing a hood ornament in a national magazine. But Born, a natural genius, did it cheaper and got the same effect. His instinctive scrawl was an act of war, designed to blast out a beachhead in the minds of his prospects and to force his competitors out of sight, out of mind, and out of business.

One of the oldest rules of the advertising industry is, "Sell the sizzle, not the steak." If you link a mundane consumer product to an emotional hook, it will seem different and exciting. This is why a lot of people think Irish Spring soap is "manly" and Caress soap is sexy. It's why Marlboro smokers act like cowhands, why Kool smokers emulate jazz musicians.

Contrary to popular belief, advertisements are not designed by flaky people who wait around to hear their muse whisper something like, "It's the real thing." Advertising is an $88 billion industry in which the decisions depend on research, not the muse. A consumer's decision to buy depends on a tangled combination of reasoning and emotion. Unraveling that knot and finding the "hot button" that leads to a purchase is the goal of marketing research. Selling sizzle is a science.

Born made an intuitive guess. Advertising professionals rely on databases and research techniques that can tell them almost anything they want to know about you or anyone else in America. Marketing warriors are rapidly perfecting their research weapons, and they are having their way with our minds.

America's economic base is completing its transition from industrial manufacturing to businesses that provide services and information. This transition has produced three tough problems for businesses: a glut of consumer choices, weak population growth, and fragmented consumer demand. In such an environment, any business whose marketing and advertising plans don't work is doomed.

Almost every industry, from retailing to hotels to autos, currently suffers from a glut of products on the market. The major issue at this year's meeting of the National Retail Merchants' Association was the oversupply of retail store space. Many hospitals operate at only 50 to 60 percent of capacity. And last year, automakers were forced to offer zero-interest loans in a last-ditch effort to move cars off their lots.

One by-product of a glut is the proliferation of choices available to consumers. This trend is obvious at the supermarket, that consumer wonderland where tens of thousands of different products compete with each other for our attention. The din of accumulated advertising from those products is deafening.

Ordinarily, market growth would ease a glut of product in due time. But the second problem, weak population growth, compounds the first two. With the exception of Florida, California, and Texas, almost no population growth has ocurred in the U.S. in the past decade. In fact, the Northeast and Midwest have suffered significant population losses. Products have

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Brad Edmondson's job is to follow the collective drift of people's lives as they migrate across land or bunch up in time. He is Associate Editor at American Demographics *and lives in Ithaca, upstate New York.* *—Kevin Kelly* proliferated, but in many areas, there are fewer people around to buy them.

The third problem is perhaps the toughest of all, for the mass market of the 1950s and 1960s has exploded into dozens of rapidly changing market segments. The baby boom, which occurred between 1946 and 1964, bracketed the last great era when businesses could depend on a mass market. In those days, dad made money while mom stayed home, raised kids, and decided what to buy. Businesses pitched themselves almost exclusively to mothers, and it worked. But as the baby boom generation grew up, the mass market unraveled into a mess of divorces, cohabitation, swinging singles, and communal living. Today, married couples with children constitute only 28 percent of all U.S. households. Childless married couples constitute another 30 percent, single persons 26 percent, and single-parent families are 16 percent of that total market. Each type of household has radically different needs.

The typical American encounters between 7,000 and 10,000 commercial messages every day and pays attention to only a few. Marketers know that most of their efforts are wasted, and they have a desperate need to become more effective. Their task is extremely difficult, however, for they can succeed only by making someone else fail.

Those who sell are pinned in on two sides. A glutted, slow-growth economy full of fickle consumers produces intense competition and rapid shifts in demand. And a consumer's mind, glutted as it is with commercial messages, necessarily tunes out all but the most arresting ads — the ones that make a difference to their lives. Advertisements are competing against each other, too.

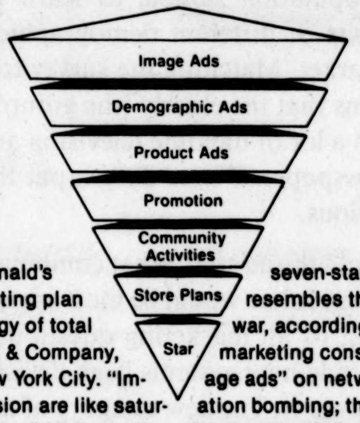
From time to time, an adept business person will hit upon a new product and be the first to fill an untapped consumer need, which is the marketing equivalent of striking gold. But the vast majority of new products fail. There are simply too many businesses chasing too few needs these days. In many industries, both sides are entrenched, and each is searching for the tiniest opportunity or weakness in the competition.

Marketing strategy now resembles the strategy of warfare. The competition is an enemy who must be destroyed or contained. The consumer's mind is the battlefield that must be studied intensively for strategic points that could be exploited. And the business captain who has superior market intelligence on the customer and the competition will prevail.

INFORMATION AS A WEAPON

Businesses need to know two things about consumers: their attributes and behavior. Attributes are the outer facts of the customers' daily lives and their inner wants and needs. Behavior is what they watch, read, and buy. The owner of a mom-and-pop grocery store knows the answers to these questions instinctively. But in a big corporation, where the decision-makers are removed from the customers, such things as sales records, media ratings, demographics, and attitude surveys take the place of the face-to-face encounters Mom and Pop had.

McDONALD'S STRATEGY FOR TOTAL WAR



McDonald's seven-stage marketing plan resembles the strategy of total war, according to Arbeit & Company, marketing consultants in New York City. "Image ads" on network television are like saturation bombing; they "position" McDonald's and make the minds of customers more receptive. Demographic and product ads are targeted at the vulnerabilities of specific market segments. Promotions and community activities enhance the image at national and local levels. Store plans and the Store Trading Area Representative (STAR) system are like guerrilla war: "The battle for the heart, mind, and pocketbook of the consumer must be fought on a day-by-day, store-by-store, purchase-by-purchase basis," writes Steve Arbeit.

Marketing Communications

Demographic facts like age, income, education, occupation, sex, race, and marital status reveal a lot about a person, and marketers use them to outline customer needs in the most obvious and general way. Age tells a lot. Babies need diapers, the young need education, and the old need health care. Income shows you what people can afford. Demographic data are cheap and easy to get, for the U.S. Bureau of the Census records everyone's vital facts every ten years. And although individual census returns are confidential, the bureau releases averages for areas as small as a single city block.

Once a business knows the names and addresses of its customers, it can assign their locations to a computerized geographic index — a sort of map database. Then it compares the map to the bureau's description of the demographic characteristics of each neighborhood. This technique, called geocoding, is popular because it's cheap, fast, and it usually works.

Let's imagine that your local bank wants to know how to promote itself efficiently. They'll probably begin by giving their customer mailing list (the one they use to mail your statement once a month) to a data company. For a few hundred bucks, the company will prepare a report that describes the neighborhoods where their customers live. The report also shows your bank the areas where it is the market leader, and other areas where it might have new opportunities.

Now your bank needs to decide where to advertise its estate planning service. It gives the data company more money, and the company takes a survey of a representative population sample to learn the media-watching habits of different demographic groups in the bank's market. Matching the survey to its report, the bank learns that the elderly (the group it wants to attract) watch a lot of daytime television and read the afternoon newspaper. Where does it put the ad? The choice is obvious.

But what should the ad say? What combination of images, words, and colors would be most appealing? This is the toughest of all marketing questions, and only in the last decade have systems been devised that can attempt to answer it. The new category of information attempts to describe our values, beliefs, fantasies, and dreams. Such psychographic systems are designed to help businesses find an image that appeals to the target group of customers. Data on demographics, buying habits, and media-watching helps businesses attach themselves to that projected image. Riding on that symbol they drive themselves deep into our brains.

Ad agencies collect their own psychographic data, and many create their own systems to aid designers. In one recent agency survey, 1,000 men were asked to describe their dream job. The men said it would be something exciting and rugged, like a professional athlete, test pilot, cowboy, or race car driver. If you've ever wondered why Winston ads show men smoking cigarettes while hanging in harnesses from helicopters, there's your answer.

There are also ready-made psychographic systems. The best-known and most widely used is the Values and Lifestyles (VALS) program of SRI International in Menlo Park, California. VALS is the brainchild of the late Arnold Mitchell, a social scientist who described consumer groups in a 1983 book, *The Nine American Lifestyles.* VALS fits Americans into a nine-category typology by asking them 30 questions. The nine kinds — Survivors, Sustainers, Belongers, Emulators, Achievers, I-Am-Me's, Experientials, Society-Conscious, and Integrateds — describe a progression from poverty ("Need-Driven") to enlightenment through either "Outer-Directed" or "Inner-Directed" data. (See chart).

Some of the questions on the survey are unusually personal ("I like to think I'm a bit of a swinger"; "I'd say I was rebelling against the way I was brought up"). They are included in syndicated marketing surveys which ask 20,000 people per year to describe their demographics and what they read, watch, and buy. Through this link, a manufacturer of consumer products can see which VALS type is its best customer.

Mitchell began with the theories of developmental psychologist Abraham Maslow, who wrote that people must satisfy basic physical needs before they can feel high needs like love, power, or enlightenment. Mitchell applied Maslow's theories to American society and created a "double hierarchy" to explain the different ways we see the world. According to Mitchell, 98 percent of Americans are either Need-Driven, Outer-Directed, or Inner-Directed.

Need-Driven is really just another word for poor. This group represents 11 percent of Americans, but marketers aren't usually interested in them because they have little to spend.

Seven out of ten Americans are Outer-Directed. This group (Belongers, Emulators, Achievers) believes that work is the highest form of human activity, the goal of work is the accumulation of material possessions, and the goal of accumulation is to signal to others who you are and what you have achieved. For them, the source of moral authority and fulfillment lies outside the self.

The perfect advertisement for Belongers is: "four out of five doctors recommend something," according to James Ogilvy, a senior researcher at SRI, because belongers "respond to an appeal from outward authority. They don't mind being told what to do."

The Need-Driven and Outer-Directed are easy enough to understand, for they stick closely to traditional ideas about poverty and wealth. But VALS is a double hierarchy — a road with a fork in it — and the remaining 20 percent of Americans are on a newer, inner-directed path. Most are members of the baby boom generation, and they represent a growing share of the total population.

If you're a regular reader of *Whole Earth Review*, you're probably an Inner-Directed American. This group (I-Am-Me's, Experientials, and Societally Conscious) rebels against materialism and questions a life of total dedication to the work ethic, perhaps because most have never known poverty. Their goals involve personal expression and enlightenment; for them, the source of moral authority and fulfillment comes from within. Of course, Inner-Directeds make consumer choices whenever they buy something. VALS' categorization of Inner-Directeds is alluring to marketers because it explains the driving force behind this new, more ambivalent breed of consumer.

Advertising to the Inner-Directed is tricky. Ads directed at the younger ones use loud music, garish colors, and quick camera cuts. Others tell us to "go for the gusto," but they can be different; one recent example shows a young woman alone, staring at a scene of natural beauty and eating Grape-Nuts. "Morning is your time," say these ads. They turn cereal-eating into a spiritual quest.

The Inner-Directeds "want to be reminded of their

THE LIFESTYLES DOUBLE HIERARCHY

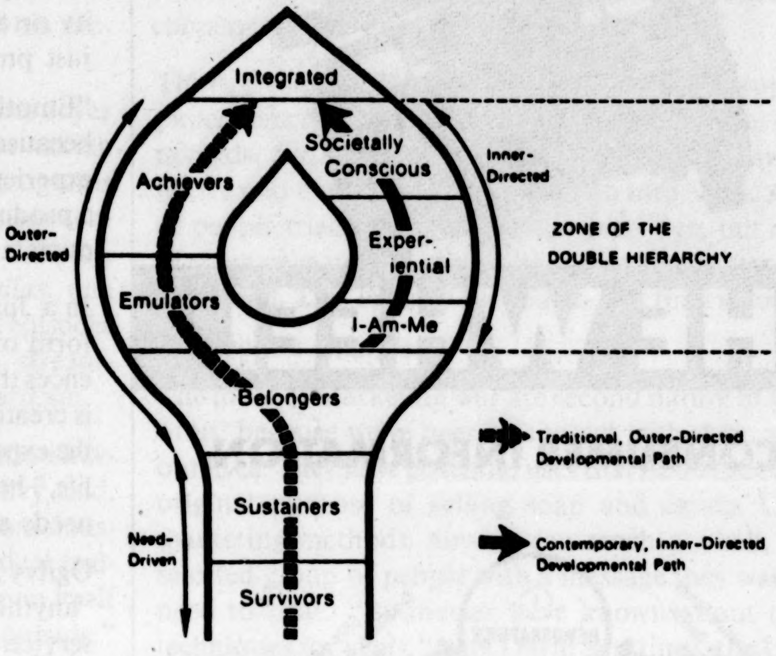


Chart from SRI International

THE NINE VALS TYPES

NEED-DRIVEN

• SURVIVORS
Elderly females who might be poorly educated and ill, or inner-city or rural families.

• SUSTAINERS
Mostly young and unemployed. Almost half are black or Hispanic. Struggling to find a place in society.

OUTER-DIRECTED

• BELONGERS
The solid middle class, four out of ten Americans. They value security, stability, and group identification; don't like to take risks or be flashy.

• EMULATORS
One in every ten Americans. They spend ostentatiously, tend to be in debt, and are a study in frustrated ambitions.

• ACHIEVERS
One out of five. Older, wealthy, well-educated; overwhelmingly white, married homeowners. Emulators are struggling to join this group.

INNER-DIRECTED

• I-AM-ME
Mostly students. Passionate about self-expression, loud music, outrageous clothes, and opposition to the Outer-Directed.

• EXPERIENTIALS
Believe in education, saving the environment, and having "peak experiences." Many are former I-Am-Mes.

• SOCIETALLY CONSCIOUS
The best-educated group. Early middle-aged adults who moved from flower power to Vietnam, Watergate, and *The Big Chill.* Although suspicious of large institutions, many make comfortable livings and have influential jobs.

INTEGRATED

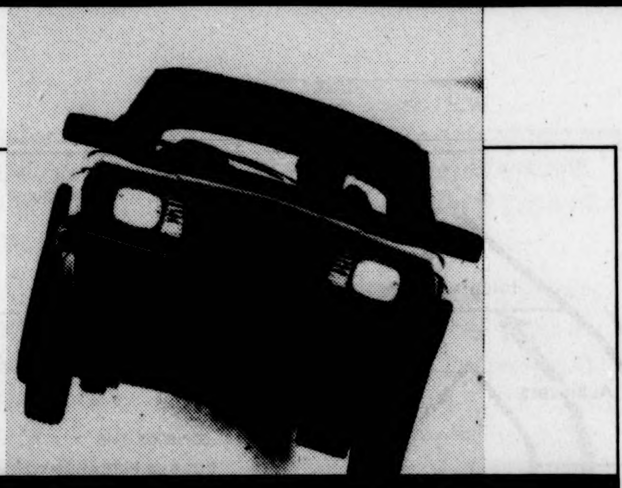
Combines Outer and Inner values. Mature and psychologically balanced; one in fifty Americans.

unique, individual qualities," says Ogilvy. "They respond to learned people, whom they see as mentors rather than traditional authority figures. They also like a lot of information about the product because they want to make up their own minds."

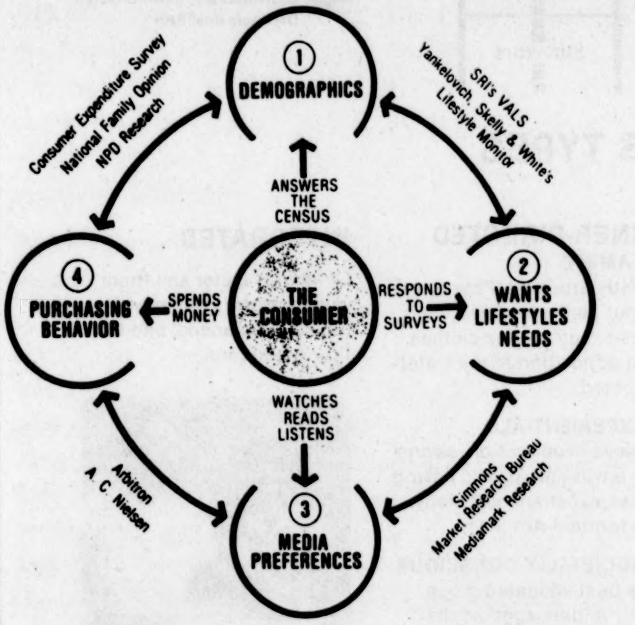
VALS has more than 200 clients, including some of America's largest consumer product and services companies. Businesses use VALS and other psychographic systems to hone their image at any point where they meet customers, a use that goes far beyond advertising. For example, Los Angeles department stores use VALS to tailor their interior design to different types, and the United Farm Workers is using the typology to target direct mailings and phone calls for a national grape boycott. A builder in San Antonio who uses it to design and sell houses found that Achiever women prefer small kitchens that are efficient and easy to clean, although they don't mind cleaning big, luxurious bathrooms. Belongers like big kitchens that are the center of family activities.

Psychographics help businesses position their products in the minds of consumers. Using this kind of research, Coca-Cola found a slogan that links its product to the positive feelings of authenticity, tradition, and quality — "The Real Thing." Good positioning makes people think of the product and feel those feelings every time they see its slogan or symbol. And by drilling the symbol further into your brain through relentless advertising, marketers hope they can get you to purchase their products with no conscious decision whatsoever. When you're thirsty, you'll automatically reach for a Coke.

For those of us who aren't selling things, this raises two interesting questions. First, what effect does a



THE WHEEL OF CONSUMER INFORMATION



This four-part explanation of market research data was devised by Peter Francese, founder and president of American Demographics magazine in Ithaca, New York. Consumers are the source of the information, and each kind of data feeds into the hub like the spokes of a wheel. Linking the four kinds of data gives businesses a complete picture of their customers.

Diagram from *Health Care Consumers* by Peter Francese and Brad Edmondson, American Demographics Inc., copyright 1986. Reprinted with permission.

lifelong barrage of commercial symbols have on the human mind? And second, is it possible to somehow seal one's mind against this onslaught — to repel the mental marketing invaders?

THE EXPERIENCE INDUSTRY

Clearly, marketing warriors have had their way with us. Emotions and fantasy are mingling with products like never before. The mind of a person steeped in popular culture has been conditioned to believe that cars equal excitement, soap and cigarettes equal virility or allure, and products in general are more than just products.

"Emotional advertising is becoming more important because young consumers are changing the way they experience products," says Ogilvy. "The line between a product and its image is blurring. People look at products as if they were mood-altering substances."

In a June 1985 VALS report, Ogilvy identified a new form of consumer who is more interested in experiences than material goods. He says this kind of person is creating a new sector of the economy, which he calls the experience industry. "People are redefining the good life," he says. "In the information economy, one's higher needs are satisified through experiences."

Ogilvy says that the new consumerism encompasses "anything you can do to your mind with a product or service. You can cultivate it with education, broaden it with travel, escape it with entertainment, or heal it with psychotherapy. You can warp and numb your mind with drugs and alcohol, edify it with religion, or enrapture it with art." Fitness centers, mega-heroes in sports and entertainment, the drug trade both legal and illegal, new electronic toys, and for-profit spiritual seminars are all part of the experience industry.

These products and services aren't well described by economists, Ogilvy says, because economists use terms that describe the fading industrial economy. The experience industry is part of Daniel Bell's post-industrial state, or what VALS alumnus Paul Hawken calls "the next economy." It is the consumer side of the information age.

Some marketers have already grasped the difference, and their ads are changing to reflect it. Toyota's "Oh What A Feeling" campaign is a good example of the shift in emphasis. "It grafts experiences onto a classic durable good, the automobile," Ogilvy says. "The brilliance of it is that it takes a problem that consumers have with Toyotas, their lightness, and turns it into an asset by showing people jumping into the air. The ad tells you that Toyota is a light, free car and makes you associate driving it with the feeling of weightlessness."

AMF, the sporting goods manufacturer, recently mixed experience with its footballs by using the slogan, "We sell weekends." "The consumer sees the product as a gateway to an experience," says Ogilvy. New ads for Chevrolet, Levis, and Pepsi simply create a mood and subtly associate the product with it. "Advertisers are recognizing that to consumers, emotions are stronger than ideas," says Ogilvy.

Decades of advertising have convinced many of us that automobiles, jeans, and soft drinks are mood-altering substances, gateways to the experiences of driving, fashion, and youth. As a by-product of this conditioning, people are getting closer to the true source of thrills and emotional satisfaction — their own minds. Cultural heroes like David Byrne and David Letterman blur the distinction between outer and inner perspectives: Byrne writes songs about people who have emotional relationships with buildings and food, while Letterman selfconsciously exposes the nuts and bolts of his television studio.

Radical narrative shifts that earned writer James Joyce a reputation for being impenetrable are now taking place effortlessly in mainstream television programs like ABC's *Moonlighting,* where the characters step out of their roles, give a sarcastic critique of the plot, and then step back into the action. On *Dallas,* one character recently dreamed an entire season of episodes in one night. With this ad-addled generation, stream-of-consciousness thinking has hit the mainstream.

"The public is showing increasing sophistication having to do with epistomological issues," Ogilvy said. "They're seeing that perspectives of human consciousness are as important and influential as physical reality. Consciousness is beginning to enclose upon itself like a mobius strip whose inside becomes its outside."

YOU CAN RUN. BUT . . .

For conscientious objectors to marketing war, there are at least four ways to defend one's self against the barrage: 1) you can dissect advertising, 2) you can refuse to give them your name, 3) you can head for the hills, or 4) you can redirect its energies.

First, *Dissect Advertising*. When you see a picture of a man smoking a Winston while hanging from a helicopter, don't take it for granted. Ask yourself these questions: Who are they after? What emotions are they linking with the product? What VALS type of position are they trying for? You'll soon learn that ads are far more substantial and entertaining than the vast majority of programs and articles that surround them.

Second, *Don't Give Them Your Name*. Every time you use a credit card or the U.S. mail to buy something, someone gets the vital information they need to enter your mind. Most sweepstakes offers, for example, are really excuses to build powerful mailing lists. Some magazines, including *WER,* allow subscribers to delete themselves from their mailing lists before they sell them. You can also cut way down on business use of your name by listing it with the Mail Preference Service of the Direct Marketing Association, 6 East 43rd St., New York, NY 10017. They'll purge your name from lists that are rented or sold. I know from experience this works.

The Census Bureau, however, depends on your answer and deserves your support. Although the bureau is the original fountain of marketing data, it protects your privacy by never releasing individual records. Moreover, census data is used for truly important things like carving out Congressional districts and distributing federal aid. Most important of all, it is the only time America pauses as a nation to x-ray itself in order to get an accurate portrait of its body. Everyone who refuses to cooperate blurs the diagnosis a little bit.

Third, *Head For The Hills*. Blow up your TV, stop the paper, cancel all subscriptions to magazines that contain ads, and turn your radios into planters. Wear earmuffs and blinders whenever you go into town. A lot of people tried this about fifteen years ago, but most of them gave up and moved back into town after they got bored. This leads to the fourth and final solution: *Redirect Its Energies*.

The tools of marketing war are second nature to most of us, because we've been in contact with them all of our lives. They have potential uses that lie outside their original purpose of selling soap and candy. Using marketing methods, anyone can reach a small, preselected group of people with a message they want or need to hear. "Businesses have known about these techniques for years," says David Martinez, the UFW worker who uses VALS and geocoding to target a national boycott campaign. "We've found that it works both ways."

In a consumer culture, soap is not the only idea that needs selling. The UFW, the ACLU, Greenpeace, Klanwatch, and dozens of other peace, environmental, and social justice organizations use highly sophisticated targeting techniques for the direct-mail pieces that raise most of their money. More and more, people are equating products and ideas. Is the Sierra Club an idea or a product? It's both. It's a political idea that's marketed like a product.

Some people take this too far. Advertising executives Al Reis and Jack Trout, who created the terms "marketing warfare" and "posititioning," wrote in 1981 that *anything* can benefit by being positioned correctly. Reis and Trout even wrote up a positioning strategy for the Catholic church, after a group of concerned laity asked them how to stop declines in membership. They thought up a slogan ("teacher of the word"), proposed training priests in communication techniques, and wrote the outline for a movie. But the Pope didn't buy it.

Reis and Trout suggest that we use positioning theory in our personal lives, too. To accomplish this, simply define your life around a central organizing concept, dare to be bold even if it means making mistakes (because people remember people who stand out), and change your name if the real one is too funny or too boring. They're telling us to focus who we are into one point that everyone will remember and to drive relentlessly toward our goal, whatever it is, to turn ourselves into advertisements for ourselves, whatever we do.

There's an apocryphal story about Jerry Rubin, whose book *Do It!* was at once a classic 1960's anti-capitalist diatribe and an enormous commercial success. As the story goes, Rubin was talking to an ad man at a party celebrating the book's release. "I love it," said the ad man. "You're anti-establishment, and there's a *big market* for that." ■

Macy's ad found in the San Francisco *Chronicle*

ADVERTISING DOESN'T WORK*

*The way you think it does . . .

by Salli Rasberry

ADVERTISING IS OFFENSIVE, expensive, and takes advantage of the vulnerable members of our society. Advertising in America is more intrusive than in any other industrialized country. Yet, in spite of the fact that most Americans are exposed to an estimated 1,000 advertising messages every day, the majority of us are hardly influenced, at least not in the sense that it induces us to buy anything.

Advertising as a means to sell a product or service is simply not effective. People know that advertising is propaganda and don't trust it, nor do they remember it. According to market research studies, only 9 percent of television viewers can name the brand or even product category they saw advertised a moment before.

Although it is recognized in the ad industry that other marketing forces such as income and population changes have much more influence on sales than advertising, and many business people know that ads don't work, we seem to create more and more of them. At least there are a few people who seem to benefit from ads. The people who design the ads, and their families, derive enjoyment from them. Company employees read and watch ads of companies they work for, at least one channel of communication open to companies with large numbers of employees and usually more interesting than in-house newsletters. At Esprit, a San Francisco-based fashion merchandising company, for example, the models are chosen from employees who are naturally excited to see one another in print or on television.

DISTRUST

Our distrust of advertising is very deep seated. The October 1983 issue of *Advertising Age* stated: "Industry studies repeatedly show the image of advertising [is] very close to the bottom of the ladder in comparison to other professions. A study presented at a recent industry conference shows advertising professionals next to last — just above the used car salesmen."

When someone we admire endorses a product for large sums of money, we feel a bit betrayed. It almost hurts to see Willie Nelson endorsing Wrangler Jeans or Merle Haggard performing for Amtrak. If we feel our personal heros have "sold out" when they endorse a product, what does that say about the way we view ads?

This is not to say that some ads are not amusing (especially the ones that support the world series and the bowl games). But do they actually warrant the money spent on them in terms of long-term sales?

The myth that advertising generally increases sales, that specific ads become more effective the more often they are repeated, is inaccurate. The myth that there are efficiencies of scale in advertising such that a half-page or 60-second

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What does work are unglamorous policies that foster personal recommendation — something advertising wishes it could do. The other thing advertising doesn't do is build sustainable businesses; that is done by minding the laws of money, rather than the laws of ad agencies. It will be a long time before anyone publishes a handier manifesto of these principles than is laid out in Marketing Without Advertising *(see p. 81 for excerpts) by Salli Rasberry, author at hand, and Michael Phillips. Salli also co-authored (with Michael) the classic, but still radical, small business advisory "Honest Business" (EWEC p. 192).* —*Kevin Kelly* ad is more than twice as effective as a quarter-page or a 30-second spot of the same nature is equally false. Actually, now that many commercials are 30 seconds, people tend to pay less attention to all commercials. Currently there is much concern in the advertising industry over the introduction of the 15-second commercial, which many realize will further pollute and overtax our ability to remember even the ad, let alone the product or brand name.

Dr. Julian L. Simon, one of the few economists to study the impact of advertising, wrote in *Issues In The Economics of Advertising*, "There is not one single piece of strong evidence to support the general belief that increasing returns exist in advertising . . . there are a great many studies that show diminishing marginal returns . . . ."

How do businesses decide on what percentages to put into advertising? Traditionally, a business arbitrarily chooses 3 to 10 percent of last year's sales. This would indicate that sales lead to advertising rather than advertising leading to sales. Usually the more popular the product, the more money put into advertising targeted to people who already use those goods or similar brands. Richard Schmalensee found in his brilliant study, "The Economics of Advertising," that "total national advertising does not affect total consumer spending for goods. We find that changes in total national advertising can be well explained by a model which postulates gradual adjustment to changes in the sales of consumer goods."

It is impossible to gauge the effect of advertising. Even if an ad campaign is successful in that people actually remember the product, it doesn't mean they buy the product, even once. For instance, everyone remembers the Edsel but no one bought the car. Edsel was the most-promoted, most-advertised product ever to hit the U.S. market, yet it is a synonym for failure. Volkswagen, on the other hand, was marketed solely through personal recommendation and was a phenomenal success. It was four years before VW did any advertising at all.

If we look at collections of print ads over the past century or prize-winning TV spots from the sixties and seventies, it's interesting to note that the majority of all advertised products fail over the short run. In fact, approximately 80 percent of new products fail.

At a time when nearly all local ads were in newspapers (the late fifties and early sixties), studies were conducted in cities that had newspaper strikes. Retail sales did not drop measurably even during long strikes. Neither did savings balances increase. In other words, advertising didn't make any difference.

When the American Medical Association agreed to push for a cigarette-ad ban, John C. Maxwell Jr. of Furman Selz Mager Dietz & Birney stated, "It'll save 'em a lot of money, but it's not going to make people stop smoking." And Emanuel Goldman of Montgomery Securities puts in a nutshell what study after study had shown: "Advertising doesn't get people to smoke." Even without ads, "they sell anyway." In 1986 tobacco companies spent $2 billion in advertising. Maybe their stockholders would prefer dividends instead of squandering money on ads that barely influence anyone but the vulnerable.

When Pepsi decides to pay Michael Jackson 10 million dollars for one ad, or Sears feels that they want to spend over $20 million in one year to advertise themselves, or Toyota Motor Sales increases its ad budget to $200 million in 1987, they are not really allocating a very large percentage of their annual budgets to advertising. Aside from the public being innundated by mindless ads, the real losers are the small businesses that copy what these larger companies do. These small companies cannot afford to throw away their money, cannot afford the national average of 3.6 percent of last year's sales.

PERSONAL RECOMMENDATION

If we as consumers have personal experience and a network of friends and relatives whom we can trust to recommend products and services, this is most likely to influence us. No amount of advertising hype can influence like personal recommendation. As Regis McKenna put it in *The Regis Touch* (Addison-Wesley, 1985), "Increasingly, people are skeptical

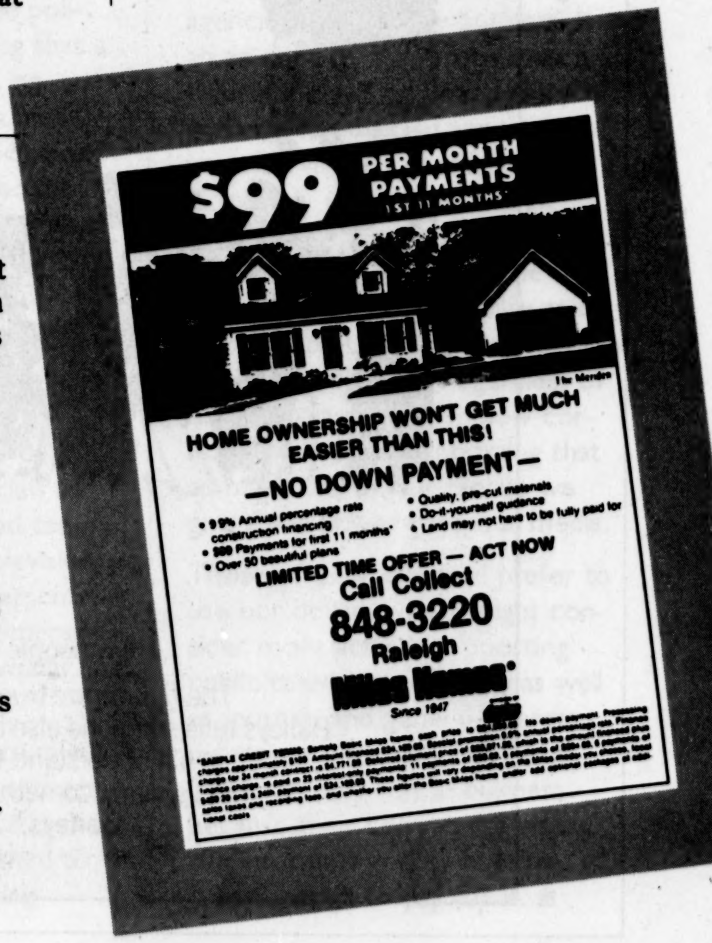
Easy terms

"Home ownership won't get much easier than this!" announces this newspaper ad for Miles Homes in Raleigh, N.C.

The company offers a "basic" home for $24,000 plus interest. No down payment. Monthly payments of only $99 for the first 11 months, according to the big headline.

After that, says the fine print, you make six payments of $204.60 and six more payments of $409.20.

Oh, yes, we almost forgot. Twenty-four months later, there's just one last little payment . . . of $24,100.



$99 PER MONTH PAYMENTS 1ST 11 MONTHS*

HOME OWNERSHIP WON'T GET MUCH EASIER THAN THIS!

—NO DOWN PAYMENT—

- 9.9% Annual percentage rate construction financing
- $99 Payments for first 11 months*
- Over 50 beautiful plans
- Quality, pre-cut materials
- Do-it-yourself guidance
- Land may not have to be fully paid for

LIMITED TIME OFFER — ACT NOW

Call Collect

848-3220

Raleigh

Miles Homes®

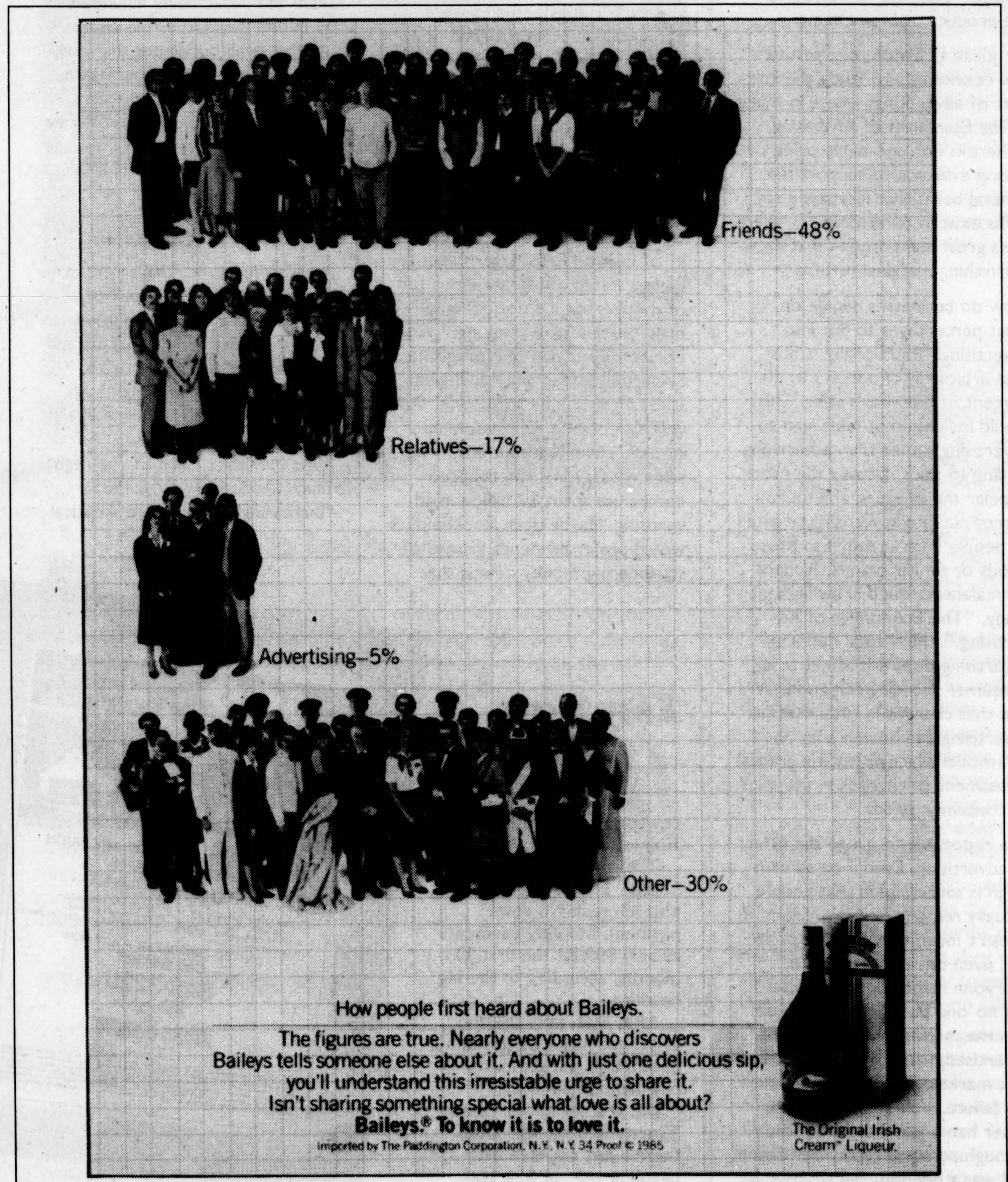
Since 1947

Consumer Reports

of what they read or see in advertisements. I often tell clients that advertising has a built-in 'discount factor.' People are deluged with promotional information, and they are beginning to distrust it. People are more likely to make decisions based on what they hear directly from other people — friends, experts, or even salespeople. These days more decisions are made at the sales counter than in the living room armchair. Advertising, therefore, should be one of the last parts of a marketing strategy, not the first."

When survey research studies of the final sales influence are conducted, rarely is advertising credited by the survey respondents as a reason for choosing a product or service. The Bailey's ad below , while humorous, is actually the norm for nearly all such surveys.

Most professionals realize that it is not necessary to advertise. In an article in the December 16, 1985, issue of *Forbes* magazine entitled "Professional Advertising: Does It Pay?" the conclusion of



How people first heard about Baileys.

The figures are true. Nearly everyone who discovers Baileys tells someone else about it. And with just one delicious sip, you'll understand this irresistable urge to share it. Isn't sharing something special what love is all about?

Baileys.® To know it is to love it.

Imported by The Paddington Corporation, N.Y., N.Y. 34 Proof © 1985 author Strully Blotnick was that of most professionals: "I think word of mouth from happy clients is the best inducement. . . . Examining a large number of cases, it becomes clear that the net effect of advertising is a change in the nature of the clientele. Most doctors or lawyers will see an increase in the number of patients or clients but a decrease in the average income of the new arrivals. These are people whose bills will have to be paid by insurance companies or taken on a contingency basis. . . . Additional office staff may well be necessary to handle the paperwork."

If you are a plastic surgeon, however, take heart, for you may be one of the few people who could actually benefit from advertising. According to Blotnick: "Without question, the doctors who have benefitted most from advertising are plastic surgeons, who have been able to offer the promise of 'a magical mixture of youth and beauty.' Where have the ads proved most effective? In the pages of glossy magazines catering to upscale readers. Apparently, not all locations in the magazine are equally desirable. One of the best is to be on the same or facing page with a four-color pitch for an expensive watch.

"A 56-year-old wealthy society matron, who had reacted to such a page, commented, 'I looked at the $8,500 watch and thought, "I already have a nice watch." So I got the face-lift instead.'"

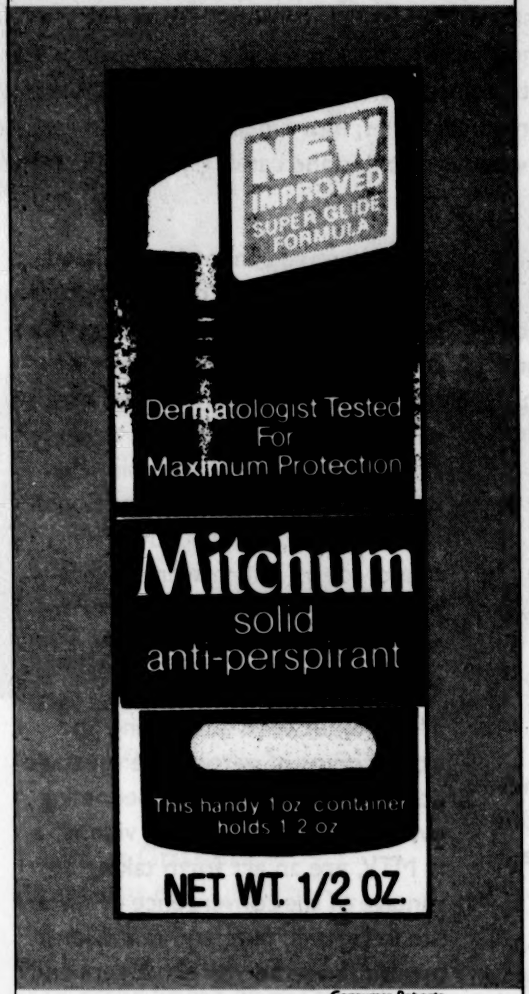
VULNERABILITY

Ads are almost all dishonest in the sense that they pretend to be bettering the quality of life when in fact they are trying to sell their product. Too many ads (we estimate at least 25 percent) are deceptive in a deliberate way.

We seem politically and morally blind to the fact that so many ads are dishonest, containing material that is clearly intended to deceive, which is, of course, the definition of dishonesty. The victims of this self-serving industry are children, the economically poor, tourists, the elderly and the educationally disadvantaged. Some inexplicable moral weakness on our part treats this as a matter outside the political domain. It is distressing that a society that erects railings on bridges to prevent suicides, censors books for the classroom, and denies birth control and abortion to teenagers, all in the guise of protection, can possibly rationalize this lack of caring for the less advantaged members of our society.

Less is more?

Small print on a box of *Mitchum* antiperspirant: "This handy 1 oz. container holds 1/2 oz."


NEW
IMPROVED
SUPER GLIDE FORMULA
Dermatologist Tested For Maximum Protection
Mitchum
solid
anti-perspirant
This handy 1 oz container holds 1 2 oz
NET WT. 1/2 OZ.

Consumer Reports

Pre-school children, for instance, have not yet learned to be defensive and wary of commercials as have their older siblings and cannot distinguish between television programming and advertisements. Although we as a nation generally agree that this is morally wrong, we do little about it.

Many recent immigrants are taken unfair advantage of by advertisers. The recent advertising blitz in the the Los Angeles area designed to lure illegal aliens into seeking amnesty is a case in point. These unscrupulous immigration consultants and lawyers orchestrated a media campaign that was misleading and in some cases downright dishonest. Many of the ads guarantee amnesty, a promise that may be hard to keep as the regulations and criteria have yet to be released by the government.

As there is no consensus among advertisers as to what strategy is most effective in attempting to manipulate the public, some marketing research firms actually hire psychologists and anthropologists to help them understand human behavior. Some advertisers certainly don't have a very high opinion of the public. The Michael Thomas Co., an EST group that sells training to small businesses, summarizes this view in their "SECRET CONFIDENTIAL" in-house paper on marketing: "Consumers are driven by a wide range of voices, pure competing emotions, and you need to talk directly to these voices in their emotional language."

This is not to imply that the majority of advertising agencies or their employees are evil and calculating, attempting to make our lives miserable for a profit. They are not the culprit; advertising agencies are hired by business. If an ad campaign is perceived as a failure by business, that agency is quickly replaced. Ad agencies exist to serve their clients and are extremely vulnerable to their every whim. There is little loyalty in this industry. And we, the buying public, are equally guilty as to a large extent we use advertisers to support our media. Regardless of how tasteless an ad or how corrupt the business supporting that ad might be, by our silence we give them power over our media.

Those of us who would prefer to use our dollars wisely might consider more actively supporting public television and radio as well as journals and general-interest magazines without advertising. They can only stay in business because their community wants the information they have to offer enough to pay for it. ■

The Coevolution of Advertising and Media

by Tom Mandel

Futurist at SRI International

THE KEY MEDIA EVENTS here are the *proliferation of new kinds of media* — cable and direct-broadcast satellite television, for instance — and more important, many more "channels." New channels include both new innovations such as teleshopping (via Home Shopping Network and its competitors) and special interest cable networks (ESPN, FNN, and MTV), more special interest magazines, more mail order catalogues (and their new cousins called "magalogs," a cross between magazines and catalogs), neighborhood shopper newspapers, and so on.

But the one thing that people cannot gain more of is time, and we only have so much time to attend to this or that new or old medium and channel. As these new media and channels become popular, they are stealing away some of the traditional media's audiences — especially, and as predicted, broadcast television. Simultaneously, sellers are increasingly discovering that mass market advertising is both costly and relatively ineffective. So they are tiptoeing away from some of the traditional advertising media, and testing the effectiveness of new media and channels or simply sitting on the sidelines. Advertising expenditures are actually falling behind their historical relationship of about 2.5% of GNP.

Advertisers are not necessarily flocking to the new media, such as cable, generally because they are not yet sure how to use them effectively for advertising. In American culture, I'm sure they will figure out how to do so eventually. But because of slower economic growth, uncertainty (or suspicion) about traditional advertising's effectiveness, changing consumer interests and lifestyles, and not knowing how to use the new media effectively yet for selling, buyers of advertising time are backing off.

Yet at the same time, a new form of "advertising" is becoming increasingly important to companies. It's called "promotion" and comes under general marketing budgets. Promotion itself isn't really new — discount coupons on supermarket products are a form of promotion — but it has taken some new twists lately. Consider, for instance, the hundreds of millions U.S. companies spend sponsoring sports figures, and sports events (as opposed to just buying ad time with them). Viewers of ESPN-TV's brilliant America's Cup coverage cannot have missed the proliferation of corporate logos on sails, in background shots, and so on. Then there's the relatively new trend toward corporate sponsorship of rock'n'roll tours. There are in fact a wide range of activities that might be considered "promotional" rather than traditional advertising. Music videos, which were originally provided free to TV by the record companies, were in fact a new kind of promotional activity.

The line between advertising and other forms of getting the message across about products is becoming even more blurred. Music videos, a la MTV, are an art form taking advantage of the convergence of several media (sound, film, and television) brought together by producers and directors whose experience has come in creating commercials. So as a subtle form of advertising or, if you wish, promotion, they began to directly influence the style of TV ads, and then went on to change the style of TV shows, of which "Miami Vice" is only the first instance, and TV advertising, some of which has become more MTV-like.

American consumers are used to getting their entertainment and information at no or very low cost. The advertising — or at least, marketing — subsidy is a crucial underpinning of the vast consumer media/information system in the U.S. (To put it bluntly, from a marketer's perspective, this system exists mainly to deliver hungry consumers to advertisers.) For the moment, the proliferation of media and channels have confused the advertising picture. The media are momentarily in the driver's seat, as it were. But sooner or later, we'll cycle back to seeing new forms of advertising (or whatever we'll call it) again playing a dominant role in all mass media, new and old.

We'll still have *mass media* but the size of the audiences traditional mass media and channels reach will very likely shrink. Audiences are being drawn away from broadcast television, for example, by other media or channels that focus much better on the specific interests of specific groups of people. Most of the automotive product ads that run on ESPN-TV during Indy car races, of interest to a fairly select audience, would never find their way onto broadcast TV. The eventual outcome of this narrowing of audiences will echo the shift that has already occurred in magazines — from general interest magazines like the old *LIFE* to a vast array of highly targeted, special interest periodicals. Eventually, programming and advertising via old and new forms of television may become extremely targeted to very small audiences; if "narrowcasting" becomes the best word to describe future television, then "narrowtising" may describe the nature of advertising that underpins it.

Beyond that prospect, a much closer, more sophisticated relationship between buyers and sellers will probably emerge. New computer-based technologies will undoubtedly enhance the ability of market researchers to discern what smaller and smaller groups of consumers — even individuals — want. American consumers will welcome this attention — if such research results in products and services tailored to our individual wants. When this happens, we will have gone full circle back to an era of one-to-one relationships between the village blacksmith and his neighborhood customers. Mass advertising won't disappear, but it will shrink in relative importance, in turn reshaping the economics of entertainment and information media. ■

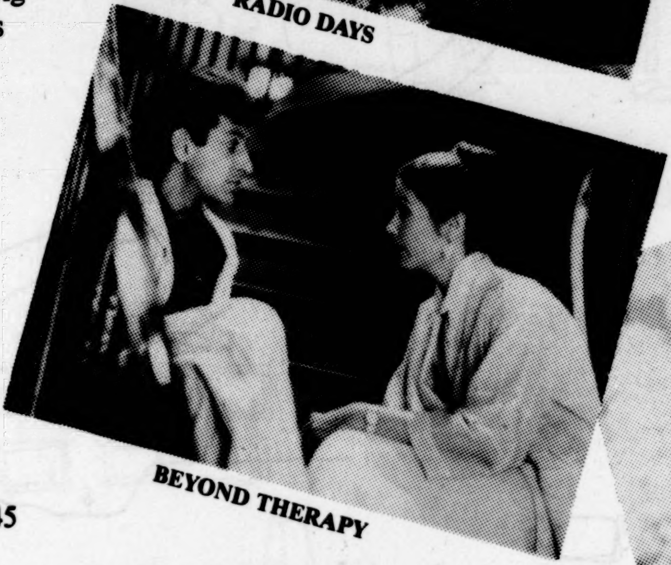
GOOD MOVIES

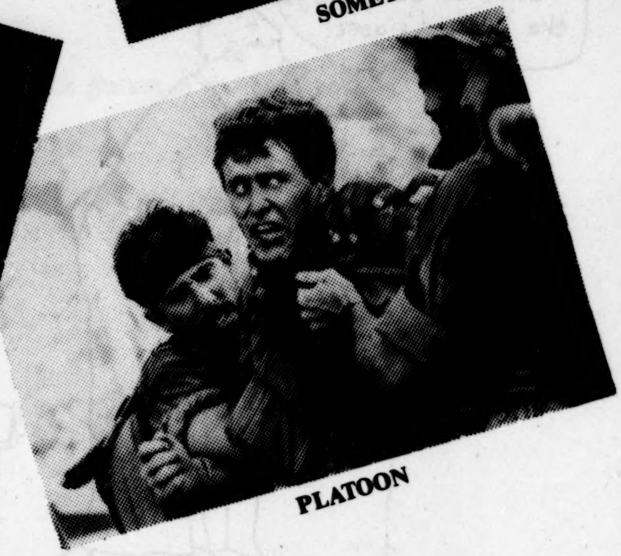
by Sheila Benson

Return with us now to the thrilling days of yesteryear . . . **RADIO DAYS** is what it felt like to grow up in Rockaway Beach from 1938 to 1945 when the world came to you entirely by way of your radio, and it is perfection. Woody Allen continues to stretch the shape of his movies: this one is episodic and relatively narrative-free, a grab bag of small, lapidary performances from not-necessarily-big-name actors. Santo Loquasto's astonishing sets, his Times Square rooftop for example, have as much presence as one of the characters — those homey Brooklynites (including Dianne Wiest), or the ephemeral Radioites (Mia Farrow and more) who materialize looking exactly as a Brooklyn schoolboy would visualize them. And — having tested this theory — you don't even have to have been *born* by 1945 to be smitten by this charmer.

RADIO DAYS

SOMETHING WILD


BEYOND THERAPY


PLATOON

★ ★ ★

Robert Altman has assembled one of his more raffish and assured casts for the adaptation of Christopher Durang's play, **BEYOND THERAPY**. There's the triangle composed of Jeff Goldblum, Christopher Guest and, in Guest's eyes, interloper Julie Haggarty. And there are the attendant shrinks and therapists of the three: Glenda Jackson (whose free-associations to remember a subject haunt me to this moment) and Tom Conti, who has an unleashed libido and a dazzling Italian accent. This is delicious romantic farce, although to throw yourself into it fully, you must forget that the AIDS era is upon us — or believe wholeheartedly in "safe sex." (Art is catching up with real life very, verrry slowly.)

★ ★ ★

If **SOMETHING WILD** sped by you during its too-brief run last year, try to find it at revival houses (if you can find revival houses). The premise may seem frayed: the Sixties-style free spirit (Melanie Griffith) who transforms an uptight yuppie (Jeff Daniels), but not only are there surprises at every turn, including a glittering debut for Ray Liotta as Griffith's dangerous ex, but director Jonathan Demme's eye for the dark cloud behind every American silver lining gives the film its real zing. Marvelous performances all around, and the music, providing both texture and subtext for the story, is collectable.

★ ★ ★

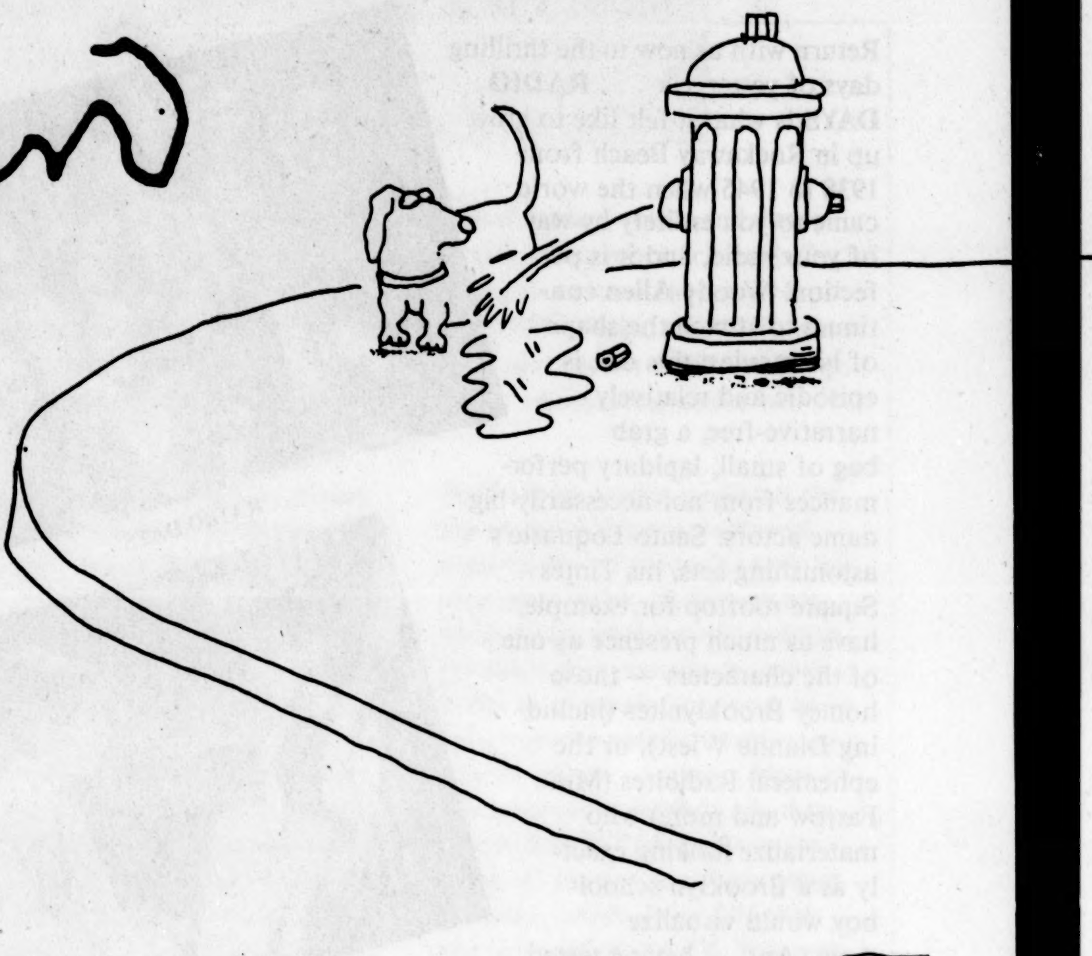
MY SWEET LITTLE VILLAGE, by Czech director Jiri Menzel, doesn't have the seditious urgency of his great **Closely Watched Trains** of nearly 20 years ago. It *is* sweet, with fine acting and physical humor which has a little of the flavor of Tati and the camaraderie of Laurel and Hardy. It's a group portrait of the people of this overwhelmingly picturesque village: lovers-in-innocence and adulterous experience; a lanky, slow-witted, agreeable worker and his curmudgeonly, rotund partner, and central to all, the village doctor, who yearns constantly for the Czechoslovakia of his youth. It gives a muted sadness to Menzel's small-scale, affectionate watercolor.

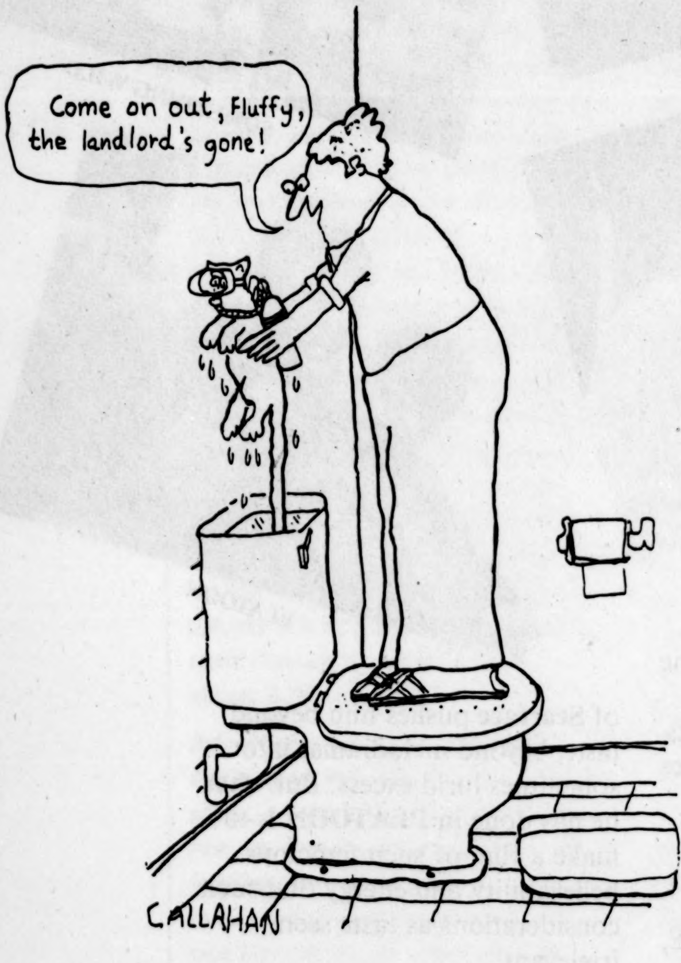
★ ★ ★

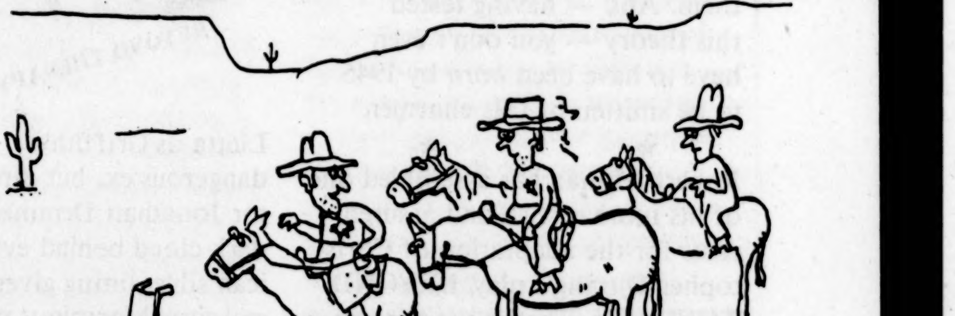
Oliver Stone is a merciless moviemaker; his frenzy to tell a story like **Salvador** or the screenplay of **Scarface** pushes him beyond taste, beyond melodrama, into sometimes lurid excess. But what he has done in **PLATOON** is to make a film of such ferocious believability and energy that such considerations as taste seem irrelevant.

Drawing on his own time as an infantryman in Vietnam, he has forced us to feel that what is on the screen is absolutely what that unwinnable war must have been like — the never-ending exhaustion, the terror, the sense of futility and rot. And most of all, the sense of military life with no inkling of a master plan. Stone should have had enough faith in his own talent to cut out the letters-home narration by Stone-surrogate Charlie Sheen, which tells us what we can only too easily see, and there are a few quibbles about the good sarge/evil sarge simplification that he uses. But no quibbles about the film's stance, its effect, or its performers, in particular Willem Dafoe, Sheen, Tom Berenger and John C. McGinley. ■

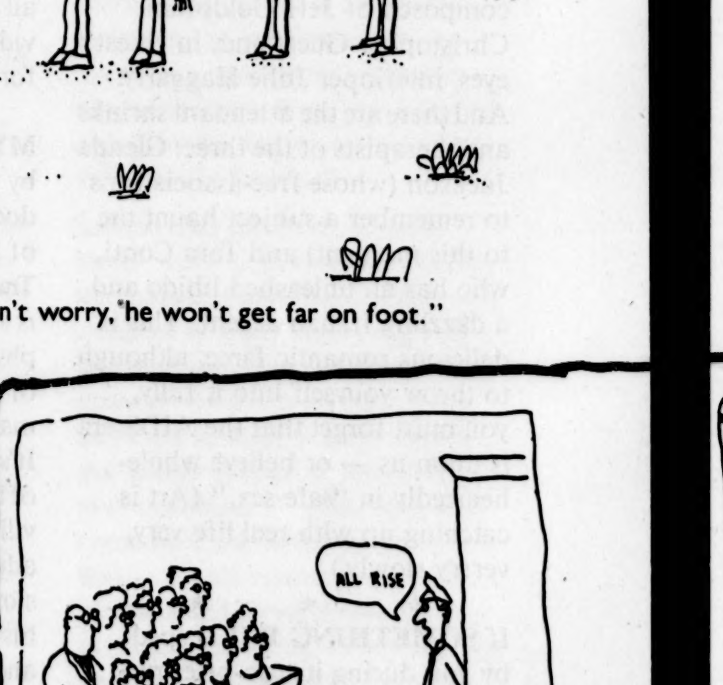
callahan

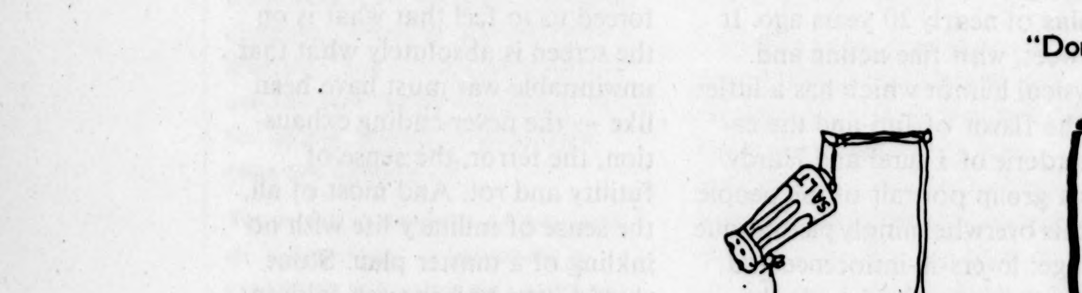


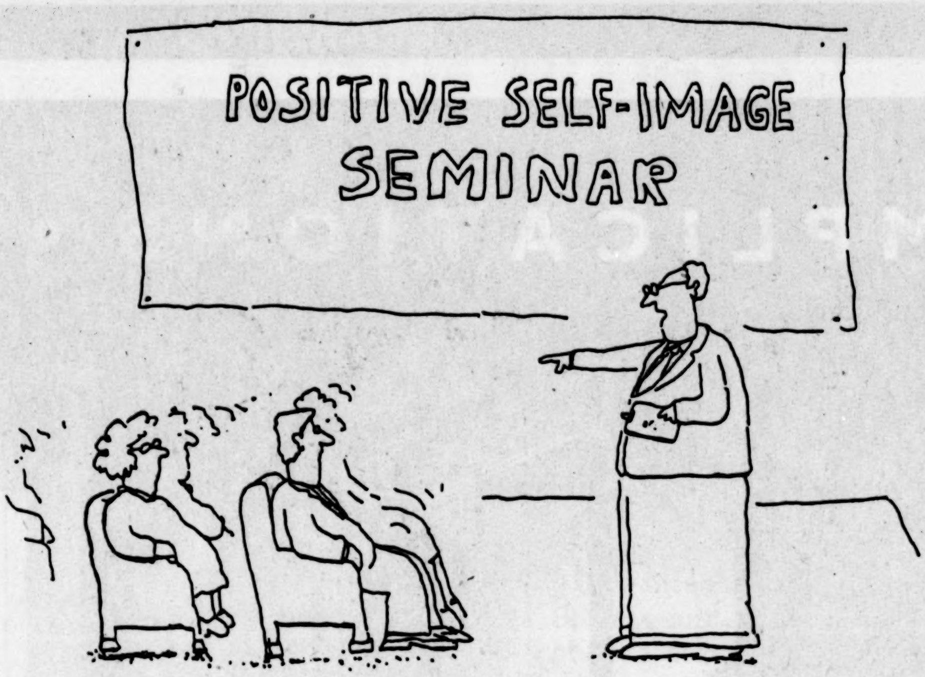

Come on out, Fluffy, the landlord's gone!
CALLAHAN



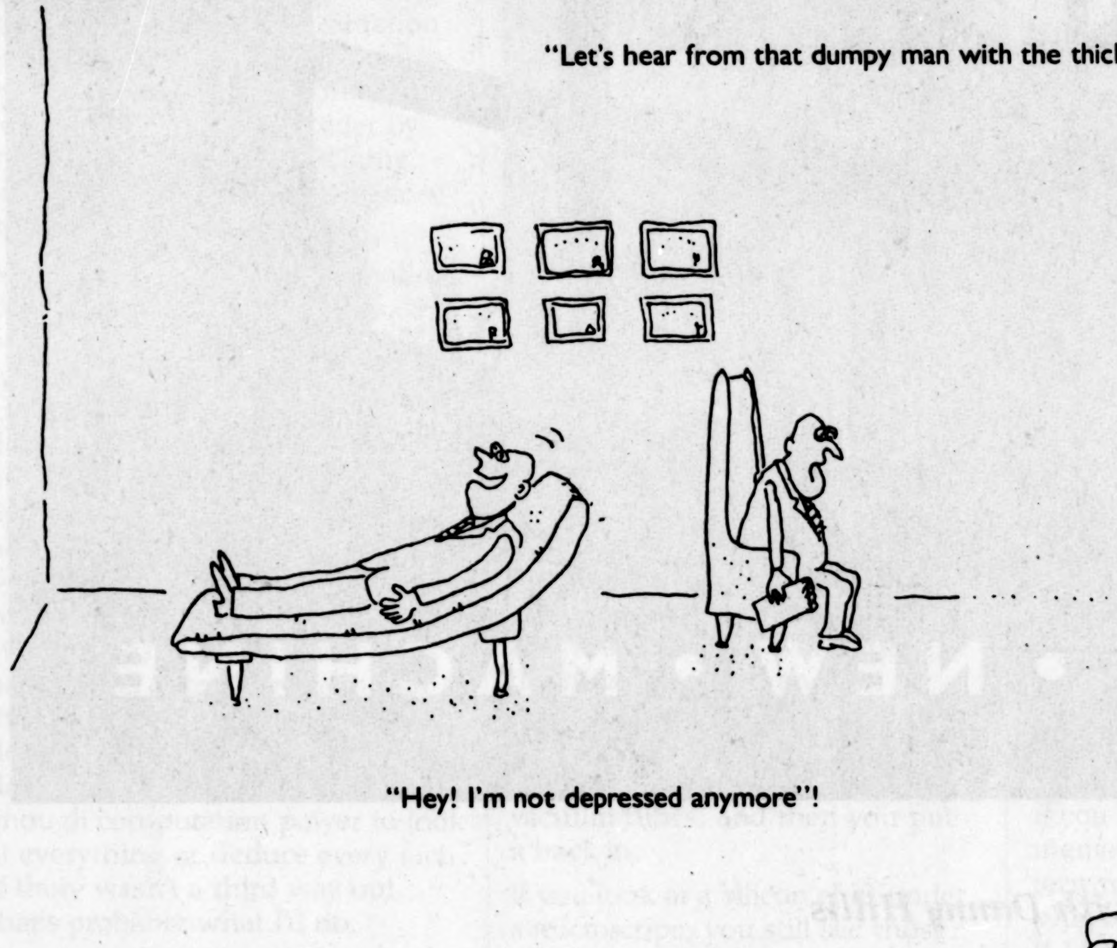
"Don't worry, he won't get far on foot."



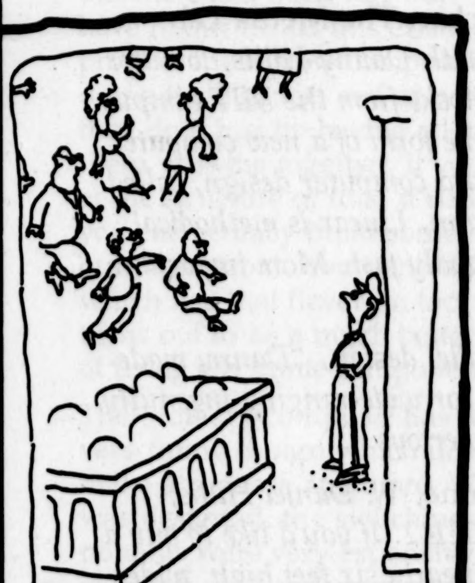

"FUNNY HE DIDNT SEEM DEPRESSED THIS MORNING."

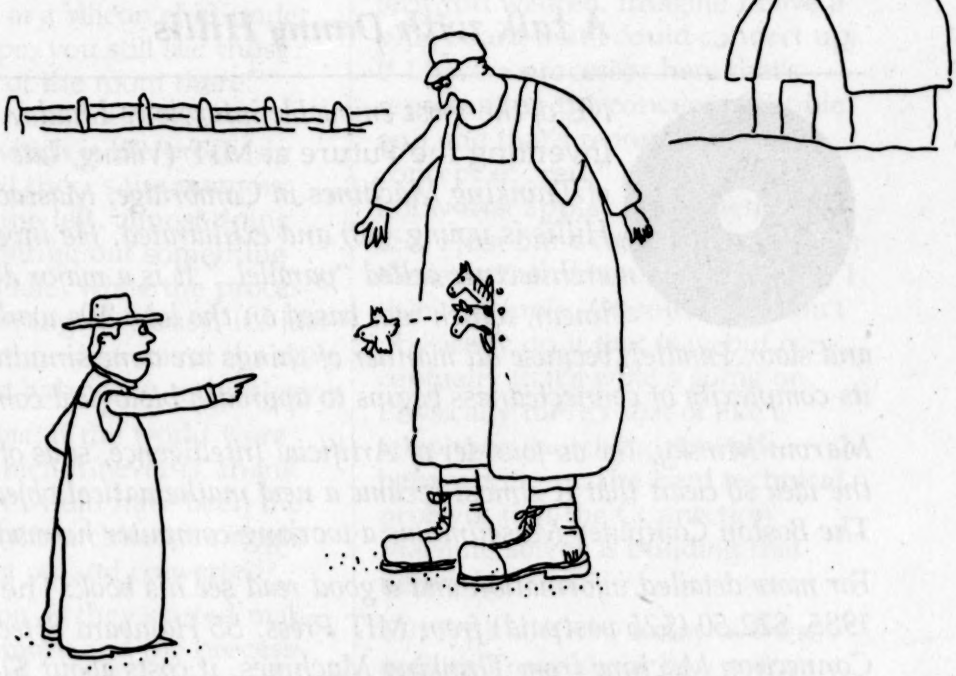

POSITIVE SELF-IMAGE SEMINAR

"Let's hear from that dumpy man with the thick glasses in the back row."



"Hey! I'm not depressed anymore"!





"Daddy! Your barn door is open!"

IMPLICATIONS • OF • A TRULY • NEW • MACHINE

A talk with Danny Hillis

ONE of the most enjoyable interviews I had in the course of researching The Media Lab: Inventing the Future at MIT *(Viking, late 1987) was this one with Danny Hillis, founder of Thinking Machines in Cambridge, Massachusetts, just three blocks from the MIT campus. Hillis is young (30) and exhilarated. He invented the most extreme form of a new computer architecture called "parallel." It is a major departure from standard computer design, called linear, which was based on the late-'40s work of John von Neumann. Linear is methodical and slow. Parallel, because all manner of things are done simultaneously, can be ungodly fast. More important, its complexity of connectedness begins to approach biological complexity.*

Marvin Minsky, the co-founder of Artificial Intelligence, says of Hillis' massive parallel design, "Danny made the idea so clean that it almost became a new mathematical object." Hillis is known for wide-ranging ingenuity. The Boston Computer Museum has a working computer he made entirely out of Tinkertoys.

For more detailed information and a good read see his book: The Connection Machine, *W. Daniel Hillis, 1985, $22.50 ($25 postpaid) from MIT Press, 55 Hayward Street, Cambridge, MA 02142. If you'd like to buy a Connection Machine from Thinking Machines, it costs about $1 million and stands nearly six feet high, wide, and deep, in "hypercube" form, Darth Vader black, with smoky red lights flashing through the black. A half dozen are in use so far.*

—Stewart Brand

Danny Hillis: We have one example of intelligence, which fits in about a square meter of neurons. It's wadded up into a ball inside your head. And we know that it's able to do, by definition, the kinds of things that we call intelligence.

On the other hand, here we've got these manmade components which are a million times faster. Yet to give them something to do like looking at a picture and knowing that it's a picture of a chair or a desk takes them hours and hours, if they can do it at all. Not only that, but the more information you give them, the slower it gets. So it's a kind of paradoxical situation — if you try to make them smarter by giving them more information, you're making them stupider by making them slower. That's the catch-22 that Artificial Intelligence is in right now.

AI is at a funny place. You can look for areas where stupidity works — that's what's called "expert systems," where just a little bit of knowledge is sufficient to get you through. The other area that people are going into is trying to figure out some tricky way of not having to look at all the knowledge — techniques like "backward search," "rule-based reasoning," and "frames." They all probably have grains of truth in them, but they're basically ways of avoiding doing what's the right thing to do, just because you don't have enough computation power to look at everything or deduce every fact. If there wasn't a third way out, that's probably what I'd do.

But there is a third way out. We have in our heads this existence proof of these slow components doing intelligence, and apparently they do it just by having a lot of them working together. If you look at the structure of that, it turns out you can actually build something out of electronic components which has that flavor. In fact it turns out to be a much better way of using electronic components.

The ordinary computer has this very funny design which doesn't make any sense any more. When it was designed, the switching components were very expensive and very fast, and the memory components were very slow. One half of the room was these big expensive vacuum tubes, and you had to keep those busy. The other half of the room was big slow mercury delay lines or cathode ray tubes, and you only got a word out of them every once in a while. So the whole design was set up to balance this. You got out a word and did a lot with it with the vacuum tubes, and then you put it back in.

The machines will get good enough at dealing with complexity that they can start dealing with their own complexity, and you'll get systems that evolve.

If you look at a silicon chip under a microscope, you still see those two halves of the room there. There's the vacuum tubes over on the right, which is the processor section, and there's the memory section on the left, almost doing nothing, spitting out something once in a while, while the processors are keeping very busy. It's just a leftover from what was at the time a very good balance in technology.

Stewart Brand: If the world were optimal, which it never is, thank God, when would have been the time when the architecture might have caught on and converted?

DH: As soon as they started making the memory and the processing out of the same components, which is relatively recently — when magnetic core memory went away and got replaced by semiconductors, in the mid-'70s, when everything got so much cheaper, and you could print the things off like pamphlets.

Parallel processors take this sort of stupid computer and put two of them down in parallel. Then you've got the problem of breaking a problem in half and getting the processors to work together and not step on each other's toes. If you put four of them down, it gets a little bit more complicated. That process sort of bottoms out at about a dozen.

The Connection Machine is a little bit different. The Connection Machine assumed from the beginning that there wasn't a distinction between memory and processing and that you wanted tens of millions of things. A neuron is basically a memory/processing element, and the information, as near as we can tell, is in the connectivity. Nothing very interesting happens within just one neuron. The interesting thing is the interactions between them. So that sort of led me into looking at systems where nothing very interesting happens in one computer, if you will. Instead, the computation takes place by the whole ensemble of things working together.

SB: "Connections" in terms of relationships or in terms of actual wire?

DH: It's not physical wiring, it's *as if* you had the little tiny processor/memory units wired up in any pattern you wanted. Imagine I have a plug board that I could connect up. If I have a processor here that's representing the concept of "apple" and one that's representing the concept of "red," and I want to know that apples are sometimes red, I just put a connection between those so that when I think of red, I think of apple. Of course we don't physically do it that way, but conceptually that's what's going on. Physically there's sort of like a telephone switching network between them. The hard technical problem that the Connection Machine solves is building that network.

SB: Typically how many of these entities know about how many other entities?

DH: Typically each one only

knows about a few, say less than a dozen, but you build tree structures. Lets say "red" knows in some sense about everything that's red. Now the way that you really do that presents a problem, because if everything that's red needs to talk to "red" at once then that would become a bottleneck, and "red" would be very slow handling all of these tens of thousands of requests about what red is. But with a tree structure "red" connects to four others and those to four others and so on, and that whole tree represents the concept of "red."

SB: How much attention are you really paying to neurons? Are they sort of a metaphor at this point?

DH: Completely a metaphor, and it's a bad metaphor because we don't really understand neurons.

SB: Why is the machine you're doing the size it is?

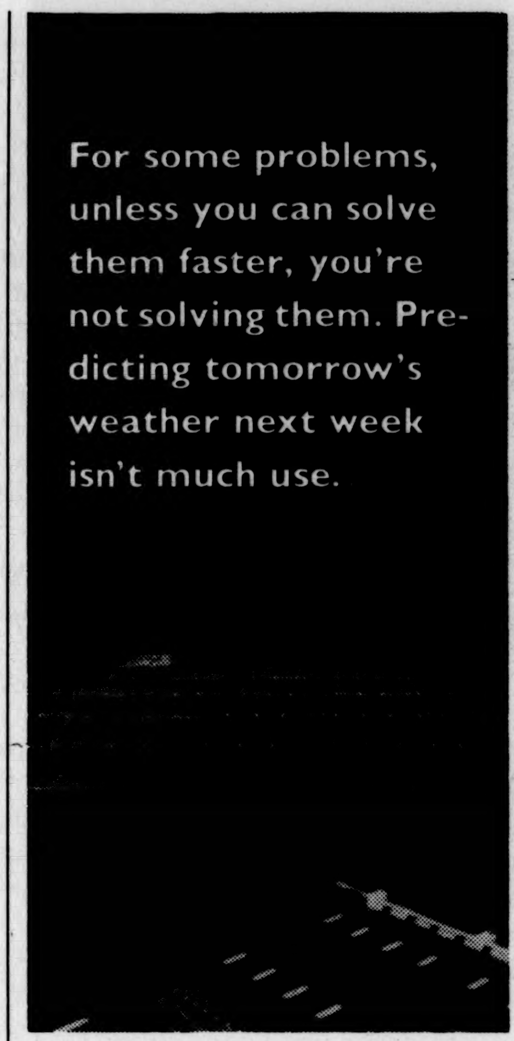
DH: Two kinds of people ask that question — some of them "Why is it so big?" and some of them "Why is it so small?"

SB: Which is the more interesting dimension?

DH: The reason it's so small is I can't build a bigger one, with the current technology. This is a practical size to build. It brought us up above the threshold where you can really do a problem by assigning a processor to each piece of data. The 64,000 processors could do real problems dramatically faster than you can do them on any other computer. It's a demonstration that the concept is real, and from the company standpoint it's important because it's up to a stage where you can solve problems that nobody else can solve. Because for some problems unless you can solve them faster, you're not solving them. For instance, predicting tomorrow's weather next week isn't much use.

SB: What's your competition, Crays?

DH: For this particular one it's IBM machines. Typically we're selling to customers who are not solving their problem now. This offers them a technology that lets them start to work solving their problem, when they're really interested in one ten times as big. The neat thing about this machine is that it's at the beginning of the learning curve. It's easy to see how to build one ten times or a hundred times or a thousand times as fast, whereas the serial machines — the supercomputers — are really getting hard pressed to get another factor of two, factor of three.



For some problems, unless you can solve them faster, you're not solving them. Predicting tomorrow's weather next week isn't much use.

SB: Are all of your advantages measured in speed?

DH: That's the easiest-to-sell advantage. I think that the most real advantage, when people look back on it, is that it's just a much more natural way to do computation. That's a hard sell right now because people are so used to thinking of their problem in terms of what fits with what they're doing now. If you ask customers what they want, they say "I want exactly what I have only cheaper and faster."

SB: Is yours cheaper?

DH: Cost/performance-wise it is. But the real reason I believe in it and the company believes in it and is investing in it is, it's more natural. Let me give you a specific example.

Take a physical simulation problem. You're calculating the flow of air over an airplane wing. Now the way that that's done on a serial computer is you first of all add a layer of abstraction on top of it. You say, "Let me try to write the differential equation for that." The differential equation of course is only an approximation of what's really going on. You say, "Now my problem is to solve that differential equation. Well, I can't really do that, so what I'll do is make an approximation of that differential equation by breaking the area up into spaces and have the differential equation for each one of those chunks, and then I'll solve that simplified discrete version of the differential equation." Then you say, "I can't really exactly solve it, so I'll solve it using floating point approximation." By the time you've put all those layers of artificiality on top of it, you don't actually get a very good answer. It's a useful answer though.

If you want to sell a machine to somebody who's doing that, their definition of the problem is, "I want to do so many floating point operations per second." What they really wanted to do in the first place is figure out how the air flowed over the airplane wing.

There's a natural way to solve this. The air is a bunch of molecules bumping into each other, so you want to take hundreds of millions of molecules, bump them into each other, bump them into the airplane wing, and see how the air flows. It doesn't have anything to do with differential equations or floating point numbers or cutting up space.

On the Connection Machine that's a very natural way to do it. We use one processor to represent every air molecule, if you will. In fact we can probably answer the floating point question for them well, and that's probably why they buy the machine.

SB: Does this mean you can handle modeling extremely turbulent and large systems, like planetary weather?

DH: Maybe. With turbulence, specifically, it looks like we can model some things that weren't possible to model before. It is not clear whether the same type of turbulence that appears in the Navier-Stokes equations occurs in the real world. We've already shown some successes in that area. It's so new, it's a different physics. We're in the beginning of a learning curve on it.

We really have to decide whether to trust our model of the particles colliding and things like that.

SB: Do you think a different physics might come out of this?

DH: Oh yeah, absolutely. Already just since we've had the machine we've had articles in *Physical Review Letters* on the thing, and articles in *Nature* on some vision stuff that was done on the machine, and this is before we've announced the product.

SB: What other problem areas lend themselves?

DH: Well, design. It's being used right now to design its successor. You see that picture of a chip? That's a design for a very simple chip. The neat thing about that chip is the method by which it was produced, which was: somebody wrote a very simple LISP program and compiled it into a chip. They said, "Make me a chip which does that," and the system completely automatically designed it. Nobody drew any of those lines, nobody really even had to print out that picture — we could have just sent it off and had it fabricated.

SB: Is this sinister? Should we be worried? Is this the self-replicating robot that everybody has forebodingly foretold?

DH: You should always be worried about progress. Any new capability has a side of it you have to worry about.

SB: You worry about to what degree it feeds itself: do you have any runaways built in?

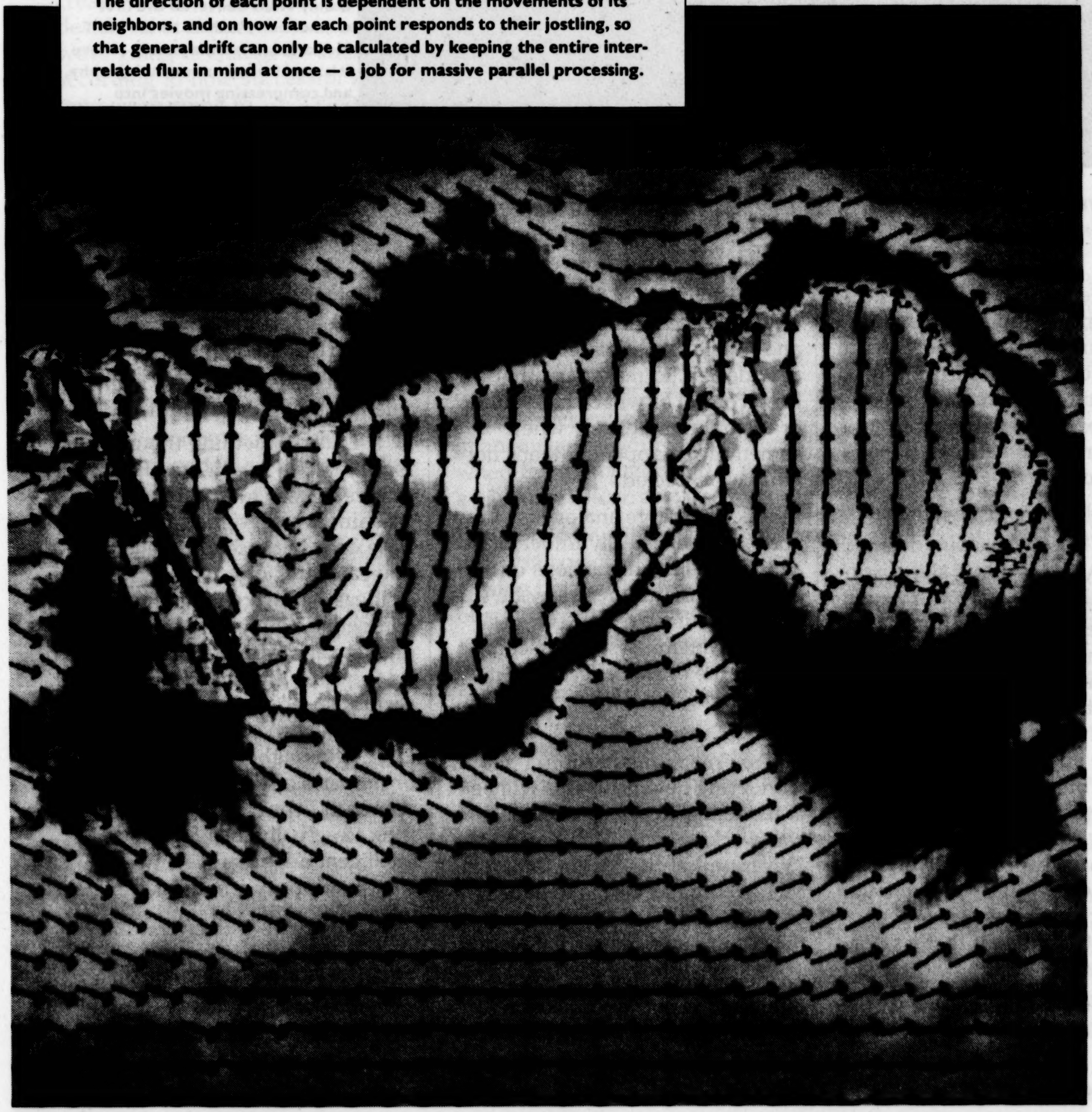
DH: Well, are you sure a runaway is bad?

SB: No.

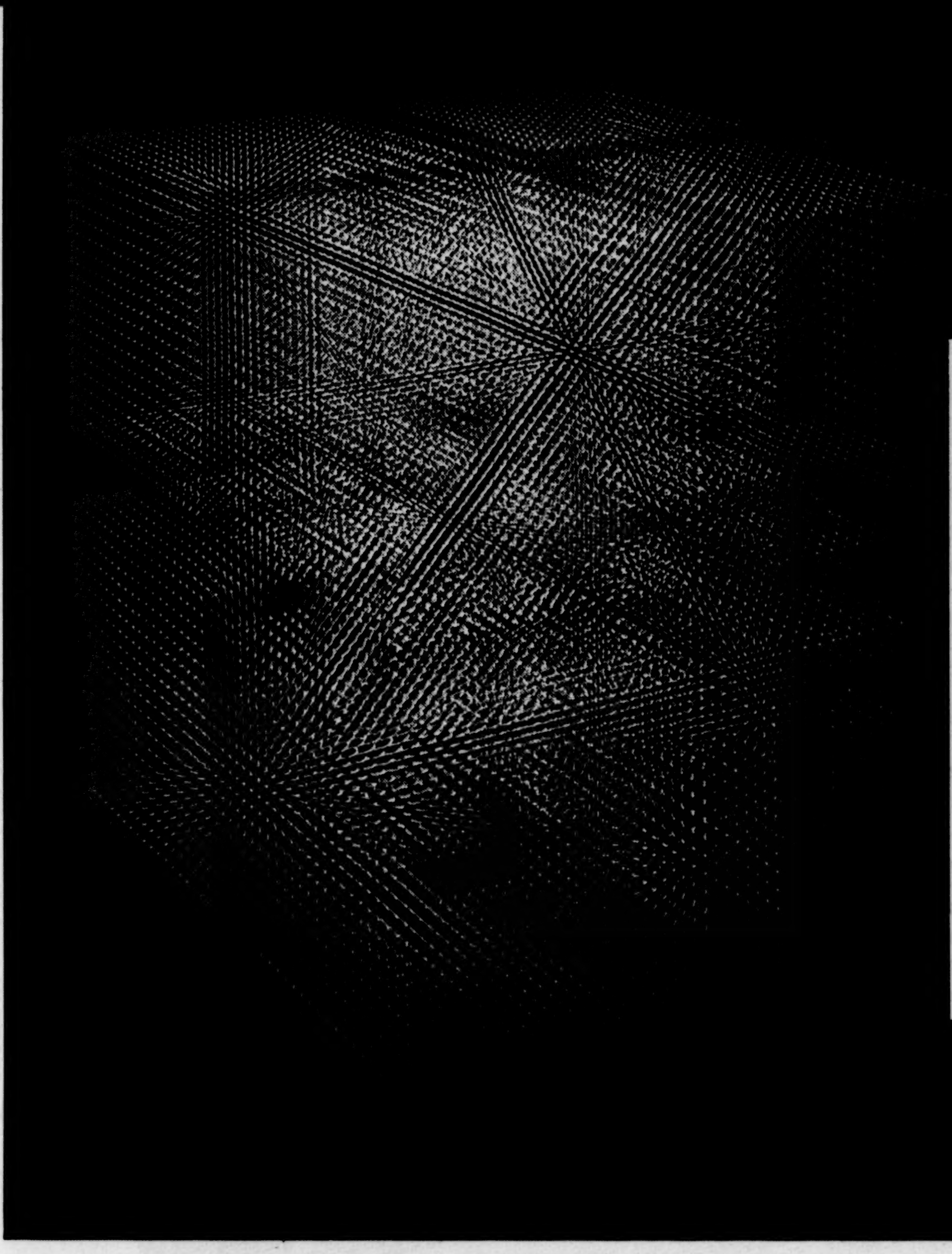
DH: Yeah, I think eventually it will feed itself. I think you'll have these machines designing their successors, and after a while we won't understand how they work.

SB: Do you still understand now?

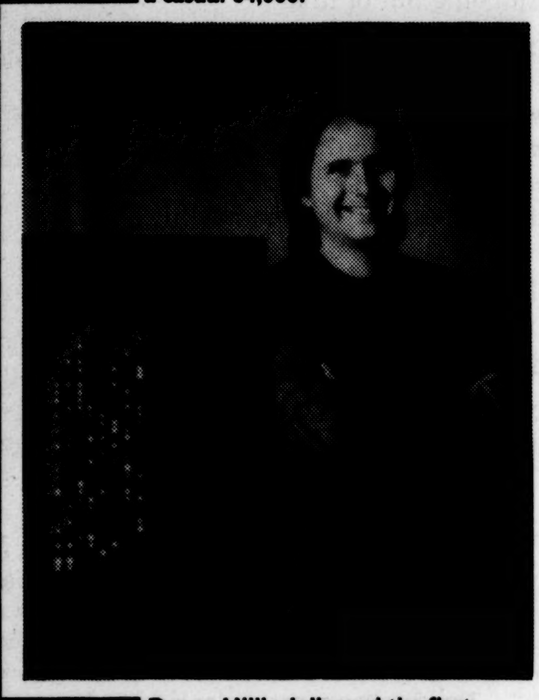
DH: Yeah, but it's getting on the edge of not understanding. With the next generation there will be a level of detail which has been designed automatically which we



One of the toughest computation problems is cheerfully calculated by the Connection Machine. A stream of fluid flowing from the left is interrupted by the diagonal black bar at left. The resultant eddies and vortexes that form behind it swirl across the display screen, as roughly indicated by the arrows and color (rendered in grays here). The direction of each point is dependent on the movements of its neighbors, and on how far each point responds to their jostling, so that general drift can only be calculated by keeping the entire interrelated flux in mind at once — a job for massive parallel processing.



The sixteen-dimensional hypercube architecture of the Connection Machine is represented by an array of 65,536 (2^{16}) points of light, each indicating one processor. The number is usually rounded off to a casual 64,000.



Danny Hillis delivered the first Connection Machine to the M.I.T. Media Lab, his alma mater, where it is used for animation, holography, and compressing movies into compact disks.

don't understand. We already get that in some of the AI programs — they surprise you by how smart they are sometimes, particularly if they're built by a bunch of different people and there are synergistic interactions between things people did.

SB: Actually synergistic rather than interfering?

DH: Of course you get interfering ones more often. Anyway, I don't see any reason necessarily why we're going to keep understanding it, which means we have less control over it. Hopefully we can put in general principles that guide it, that make sure it's going to come out right. But we can never be any more sure of that than when we're designing a bridge — we don't really understand what each one of those cables is doing, but we have enough general principles of design that we're pretty confident that it's not going to fall down.

SB: Do you over-design, the way builders do?

DH: Absolutely. In fact that's a lot of what structured programming and things like that are — a kind of over-design, to make sure that we keep control of what's happening, or catch it immediately when something's happening that's not what we expected.

I think the bridge analogy is very good. We don't really understand all the detailed interactions of the components and there may be surprises, but if we're good at engineering the system we can predict the overall effect even if we can't predict what happens along the way.

SB: You mentioned vision. I'm wondering how good this will be at modeling life-like processes. I was working with Alan Kay on the "Vivarium" at the Media Center at MIT, where the idea is to have creatures with lives of their own in these computerized virtual worlds.

DH: One thing that I'm really interested in is the connection between the kind of learning an individual does and the kind of learning an ecology does as it evolves.

SB: Yes please. That's my main interest. Say more about that.

DH: That's something the machine is very suited for. In fact, that's getting very close to exactly what the machine was designed for. If we have each of these units, which you can think of as either creatures or ideas — they're in some sense competing with each other, and growing according to how successful they are, and breeding with each other according to how successful they've been and sort of exchanging either genetic material or subparts of the ideas. I think that approach is one of the most promising to actually lead toward an intelligent adaptive system. But computationally it's just completely infeasible on the old kind of computer.

SB: Why is it more feasible on this kind?

DH: Because you can essentially

be doing millions of operations at once. Even on this first machine that we built, we're doing thousands of millions of instructions a second instead of millions of instructions a second — billions instead of millions. If you take the speed ratio of the very fastest supercomputers versus this machine, it's kind of like the difference between a bicycle and a supersonic jet. It's qualitatively different. That means you can try a whole new category of experiments.

SB: Is it the speed primarily that makes that possible? You're talking about independent entities in talking about "parallel."

DH: Well, the speed and the naturalness become the same thing. The reason it's fast is because it's a natural fit to the machine. It's really a very artificial thing to say, "Now we're going to decide what this creature does; now we're going to decide what that one does; now we're going to change its strength according to how successful it was; now we're going to . . ." Going through them one by one is a pretty unnatural thing.

In a Vivarium sort of environment, you're talking about a bunch of individual entities which can be a little bit themselves, but the most interesting thing happens through their interactions. That's why I just described the hardware. The problem and the hardware are almost the same thing.

SB: Was computer time-sharing an attempt at sort of a virtual parallelness back when it started in the early '60s?

DH: Yeah, maybe it was. I think the more interesting thing in the future is going to be space-sharing. Instead of, how do you get one computer and share it among a lot of people?, we'll ask how do you start treating computing as a bulk resource? The issue is very much the same from the user's viewpoint. From the engineering viewpoint it's almost the opposite — you have a lot of computers assigned to each task.

In either one you would like computation to be like electricity. You plug into the wall and use as much of it as you need whenever you need it. I think that is the direction this is heading in.

Let me make the analogy to electric power. Imagine if your refrigerator had to run off a battery, or your house lights had to run off a battery. Microcomputers are like batteries, they're nice but they're limited. You can only build computers up to a certain size, and it just gets harder and harder and less cost-effective. The interesting thing about this technology is you can build an arbitrarily large source of power, and I think people will use it in a utility sense. I think personal computers will be not such an important mode of computation any more. They'll still have their place, but the sort of computation you'll have in your home appliances will draw on that source of computation when they need it.

SB: You'd see a national grid or an international grid similar to the present electrical one?

DH: Yeah, let's say that. To some level of detail.

SB: So there'd be fiberoptic umbilicals coming into the house.

DH: Probably a single fiberoptic is as much bandwidth as your house and all the people in it could absorb. You want everything to have a certain amount of intelligence sometimes. You want your alarm clock, when you shout at it to shut up in the morning, to decide whether or not to shut up, based on what you said, and the rest of the time you want it to sit there stupidly ticking away. That's sort of analogous to your refrigerator; when the motor starts up it draws a big surge of current.

I think people will see this trend of decentralization of computers continuing because of the diseconomy of scale of large computers. But when this technology goes in, you'll get much more of a sense of shared communal computing resources.

SB: An office building would have a computer and that's part of what you rent?

DH: Or maybe even the city would, or would have several, like the electric power plants, and you switch between them.

SB: Will there ever be small personal parallel computers?

DH: I think that'll happen too, but if you look at personal computers, most of them are sitting around doing nothing most of the time. It's a very bad use of resources. What you really want is, for the tenth of the time that you're using a computer, you'd like to see ten times more power. And that's better done if you have shared resources.

The whole idea that software should be something like a book that you keep around your desk (and you might not have the right one) has got to go away. It's just too awful. Really you want the computer to be able to do anything it knows how to do. Anything that anybody's ever told the computer how to do is a tremendous amount of knowledge, and you want to be able to draw on that knowledge. That's got to be shared, and the step from that to sharing the hardware is a small one.

You'd still have personal computers, but they'd be more like appliances in the sense that they convert that raw computing into a useful form.

SB: Is the military jumping at this stuff? They usually jump at things first.

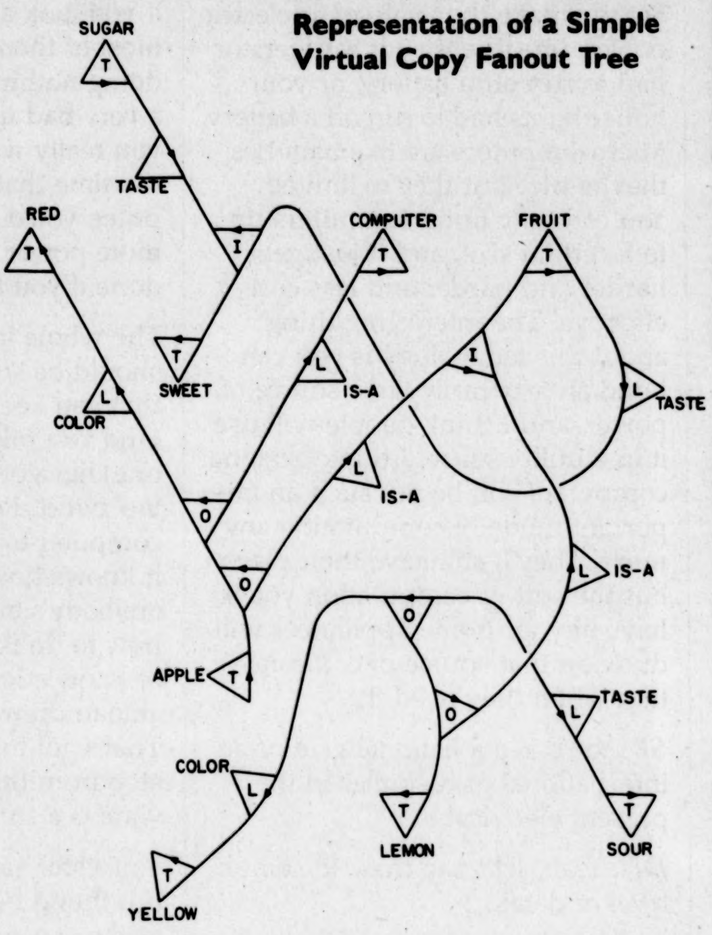
DH: The military is paying for the development of all the interesting parallel computers. They're interested in it just for sheer speed. They're the same ones that funded all the AI research — ARPA, the Advanced Research Project Agency.

SB: What are the major parallel architectures that are being worked on now?

DH: There are an awful lot of machines that are putting together a dozen microprocessors or a dozen minicomputers. I couldn't even list them. I don't really regard that as a true parallel machine. But it's going to be economically important over the next few years, and there'll be a lot of start-up companies that sell those. There are a smaller number of projects that have massive parallelism.

There's a project at Cal Tech called The Cosmic Cube, which is 256 microprocessors talking to each other. There are a bunch of projects where you wire up around a specific problem. For instance there's a project that's a two-dimensional thing for doing image processing. The Non-Von at Co-

Representation of a Simple Virtual Copy Fanout Tree



The term "fanout tree" is an electrical engineering term. In electrical circuits it is impossible to measure a signal without disturbing it. This limits how many gates one signal can trigger in a circuit. If it is necessary to drive more than a couple, it can be accomplished by a tree of buffers. One gate drives three buffers, for instance, which each drive three more, and so on, until the desired fanout is achieved. This is a way to link up components more efficiently than a grid in the Connection Machine.

lumbia University is another one. That's a tree structure with hundreds of specially made microprocessors. That's one of the most interesting ones. (I'm not even sure that Non-Von is funded at this point.) The extreme version is the Connection Machine. I think the Connection Machine is the only one that has a very large numbers of processors and general communication between them.

SB: What's the connection between what you're at here and Marvin Minsky's "society of mind"? [see *WER* #51, p. 4.]

DH: That's the kind of theory that fits well on this machine. I was working closely with Marvin this whole time. Marvin was thinking in that direction and the fact that this machine fits with it is no coincidence.

SB: Is there any programming going on that would carry it further than that?

DH: For the "society of mind" specifically, no. Actually I'm particularly interested in the genetic evolving-algorithms we are doing right now. We're trying to look for a good domain to try some of them out.

SB: I want a computer that gets jokes. I'm interested in context and content, all these things that make jokes go, and emotion. If octopuses can have moods, why can't computers?

DH: That's a good benchmark for AI. It's hard to imagine something that could genuinely tell what was funny and what wasn't without being intelligent.

SB: Yeah, something that could be as interesting as an octopus.

What can't the parallel machine do?

DH: This kind of parallel machine is good at problems in which the amount of knowledge is large, because you can assign processing to each knowledge. There are problems that are difficult problems because they have a tiny amount of data, and this would not speed those kinds of problems up. The ones that I know of are kind of esoteric — things like looking for cycles in certain polynomials.

I'm pretty sure that problems of intelligence can be solved by these slow components working in parallel. It might very well be that there's a kind of intelligence that goes way beyond what people can do, that you would want to do if you could imagine it, and there's no guarantee that *that* would be a parallel problem. But we can't even do the things that we can imagine yet.

SB: Dr. Wiesner said the other day that back in the RLE days, that golden age at MIT, theory was years in advance of the apparatus, the equipment. He said that now that's flipped, and the equipment is way out in front of the theory, and that equipment is accelerating faster than theory is. Is this a case where the hardware is ahead of the software?

DH: The hardware was designed from an approach to the software. We started out with an idea of how we would like to write programs and then invented hardware that would do that. There's a direct embodiment of that software in hardware, and that's why it's a more natural fit.

SB: Are you getting a co-evolution between hardware and software?

DH: Absolutely. After having done that embodiment, you look back at the software we wanted to do and say, "Gee, we were still locked into the old way of looking at things." It's really true even now that when you look back at the programs we wrote even a few months ago, they seem really stupid. I make fun of the physicists who model the model of the model of the model and think of that as their problem, but of course I do the same thing all the time. It's hard to get rid of your idea of how to do it versus what it is you wanted to do.

Another example. Some people were working on document retrieval [finding a certain document stored within a database]. They said, "What we want to do is a relational database query that goes very quickly." But after a while you step back and you find that really what you wanted is to find articles that interest you on a certain subject, which is different than doing a database retrieval with keywords and that sort of thing. For instance, you've got some article and it's about right, and you want to find the other articles that are like it. So they implement that operation — "find me all the articles like that one" by essentially putting one article in each processor. The one you've got says, "Here's what I'm like," and the other processors look at that and say, "How much am I like that?" and then they order themselves in the order of how much they are like the other article. That whole operation takes fractions of a second for tens of thousands of articles.

If you can do that very fast, then you can easily adjust it, "Oh yes, that's what I meant, that's what I meant, that's not what I meant. Now do it again on the basis of that knowledge." It's fantastic how fast you can get at information that way.

SB: Do you have to start over with languages and basics like that?

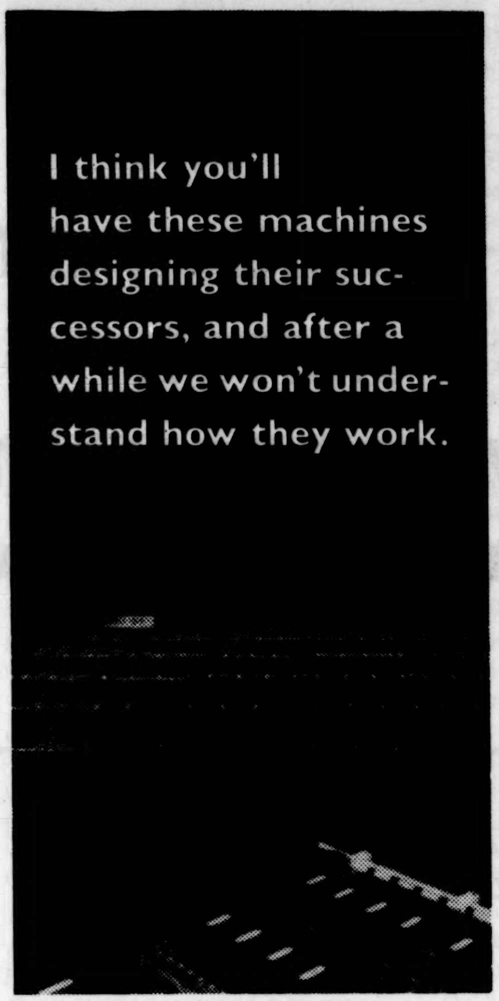
DH: I'm not sure how long we'll stick to this, but what we've done now is extending conventional languages. We allow expressions of things that weren't possible as operations before. For example, a typical kind of a construct in ordinary languages is "loop over the following set of data and do the following operation to it." We add a construct that says "do this operation to all of that data," not one after the other, just do it. We still keep the basic structure of the language, we just add in these new constructs.

I think that's again just a symptom of what we're used to. I think as we get thinking in the terms of the machine we'll completely change how we express problems.

SB: It'll be interesting to see what convergence you get with things like brains.

DH: It will be. We're doing some neat neural network simulations. I don't know if you've kept up with that, but there's been a surge in progress. There was a period when there was something called Perceptrons a long time ago, and that sort of died out. The nice thing about them was they would learn to do whatever they could do, the sad thing about them was they couldn't do much.

People have done a much more general class of neural networks that in principle — maybe not in practice — can do anything you would want to do. They have gotten them to learn learning algorithms that will let them eventually learn to do those other things.



I think you'll have these machines designing their successors, and after a while we won't understand how they work.

We're doing some much bigger, more interesting experiments now, so we'll see.

SB: Vision type stuff or what?

DH: No, for instance there's this guy Terry Sejnowski who shows strings of written text from a storybook, and puts in the phonemes of somebody reading that story. When you do that for the first couple of pages, the machine learns from the connection between the words and the sounds, which is very complicated. Then you let it read the next few pages on its own. Things like that are starting to show some pretty impressive success. You eventually get sort of understandable English out of that, including all the weird spellings. It's not an easy job.

SB: Marvin Minsky said the other day that it'll take four or five years of steady effort to come up with the languages that really take advantage of parallel machines. How does that relate to the stepwise co-evolution you're doing now?

DH: As soon as you get beyond one barrier, what you find out is where the next barrier is. I think we've opened up a barrier that is going to let us make a big spurt of progress — in the sense there was a spurt of progress in AI when the first kind of computer came along, and that really changed a lot in terms of our perception of how information processing worked. It changed our perception of ourselves, but it didn't solve the problems. I think probably this is going to just get us another step, but it's going to be a very exciting next five or ten years.

SB: What happens after five or ten years?

DH: Then everybody understands what the issues are. It becomes more an established paradigm of how to do things, more a question of filling in the chinks. But it's not like now when you feel a floodgate opened up, or you suddenly landed on the promised land and you're free to explore.

SB: Do you have a sense what's beyond parallel?

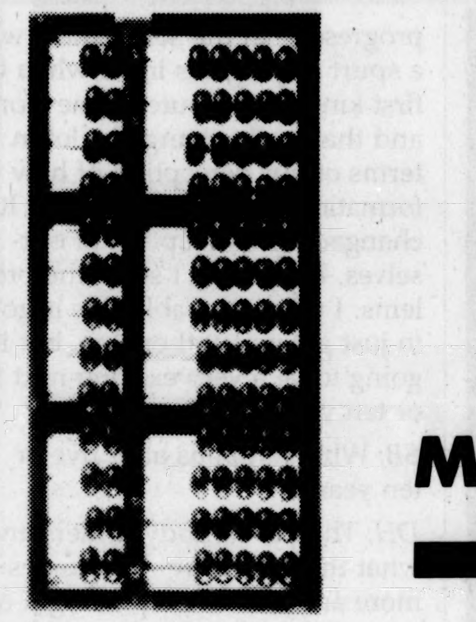
DH: I think there's two directions. On the hardware I think you're probably going to get change from electronic technology to some other kinds, which is going to open up bigger-better-cheaper kinds of possibilities — maybe more chemical or biological kinds of production techniques [see "Nanotechnology," p. 8]. That will happen and it will have a big impact, but it's a kind of engineering.

I think that the second, more interesting thing that will happen is you will begin to get the process of feeding back on itself. The machines will get good enough at dealing with complexity that they can start dealing with their own complexity, and you'll get systems that evolve. And that positive feedback will take off. I think in the long run that's going to be a much more important kind of a change than the other one.

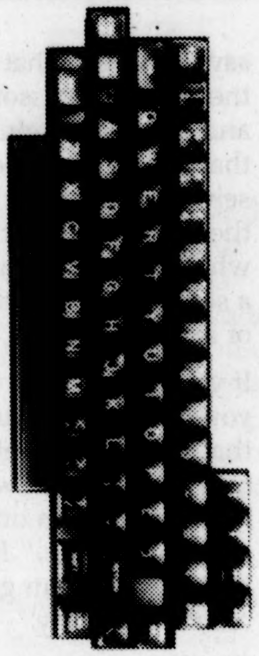
SB: How long would that run?

DH: I don't know. It's easy to predict things in the couple-of-years time scale. It's easy to predict things in the hundreds-of-years time scale, because there's certain things that just sort of have to happen. To say in between there is harder.

I think that process of machine evolution will lead to things we can't imagine right now. ■



AN INCOMPLETE HISTORY OF MICROCOMPUTING



by Rory Donaldson

3000 B.C.

The abacus is developed in Babylonia.

1400

Moslem astronomers understand the mathematical use of zero.

1500s

Geneva becomes the world's center for the mother of all machines, the clock.

1600

Galileo brings together the experiential and mathematical into a single stream of inquiry that leads to the scientific method.

1623

The Schickard mechanical calculator.

1630

The slide rule.

1652

The Pascal calculator relieves the tedium of adding long columns of numbers.

1673

The Leibnitz calculator, the first digital machine, can multiply, add, divide, subtract.

Early 1800s

Hans Christian Oersted discovers that electricity in motion creates a magnetic field that can be converted to mechanical energy. Up to this point, electricity has had no practical use other than generating heat.

1801

Joseph Marie Jacquard invents the punch-card-operated loom, creating a model for future punch-card-operated computers.

1820

The Arithmometer, the first commercial calculator.

1831

Michael Faraday builds the first electric generator.

1837

Samuel Morse and Alfred Vail develop a simple way to send a signal to a distant receiver. Their invention is called the telegraph.

1854

English mathematician George Boole creates Boolean Algebra and lays the groundwork for information theory.

1855

G. E. Scheutz builds the first practical mechanical computer.

1862

Charles Babbage's difference and analytical engines promise steam-driven machines that will mechanize thought. He draws thousands of detailed drawings that project the fundamentals on which today's computers operate.

•

Augusta Ada, Countess of Lovelace, the first computer software genius, programs Babbage's engine and understands the power of simulating a generalized machine that will do your bidding. The engine is so mechanically complex that it is unable to overcome its own friction and never actually works, but the concept is in place.

1875

Frank Baldwin opens the first American calculator shop.

1886

William Burroughs develops the first successful mechanical adding machine.

1890

The first automated U.S. census is tabulated on the Hollerith Tabulating Machine. Because of the extra reports that this automaton is able to generate, the census costs nearly twice as much as projected, creating a controversy about the benefits of automation that continues to this day.

1893

The Millionaire, the first efficient four-function calculator, hits the market.

1900-1910

Mechanical calculators become commonplace.

1903

Nikola Tesla patents electrical logic circuits called *gates* or *switches*.

1924

IBM founded.

1928

The cathode ray tube (CRT).

1936

Alan Turing describes the very idea of a universal machine, the *Turing Machine*, in a paper titled, "On Computable Numbers with an Application to the Entscheidungsproblem."

1937

Atanasoff formulates the principles of the first electronic digital calculator, including the use of base-2, binary, on-off, or "digital" signals. He builds the world's first working model of the electronic digital computer. In 1973 a U.S. district court recognizes Atanasoff as the official inventor of the computer.

1938

Konrad Zuse finishes his Z1, the first binary calculating machine.

1941

The Zuse 3 is the first electro-mechanical general-purpose program controlled calculator.

1943

The IBM Mark I, the first electronic digital computer to use mechanical relays.

•

The U.S. Army appropriates $61,700 to build ENIAC, the first productive electronic-digital computer (no relays).

1945

While working on the Mark I, Grace Hopper discovers the first computer bug, crushed in a relay. She goes on to begin the world's first programming career.

•

Vannevar Bush describes the first personal computer in an article, "As We May Think," in *Atlantic Monthly* magazine. What Bush has in mind is a miniature machine called the memex — memory extender — consisting of a desk, screens, keyboards, levers, that would act as a calculator, word processor, picture editor, and filer.'

1946

Mauchly and Eckert finish ENIAC and turn it on on February 13. Budgeted at $61,700 three years earlier, ENIAC ends up costing $486,804. The machine was designed to compute the trajectory of artillery shells during World War II, but the war ends before the system can be put to use. It is then used running feasibility studies for the development of the hydrogen bomb.

ENIAC weighs 30 tons and contains 70,000 resistors, 18,000 vacuum tubes, 3,000 neon bulbs, and 500,000 soldered joints.

John von Neumann builds the logical framework for a generalized programmable machine: a central processor, a memory, an arithmetic unit, input/output devices, operating in a step-by-step manner.

•

The EDVAC computer is able to switch between different programs.

1947

Bell Labs invents the transistor, allowing huge amounts of information to be handled by very small, inexpensive, cool devices that replace thousands of vacuum tubes.

1950

Alan Turing proposes the classic test of machine intelligence in a paper titled *Computer Machinery and Intelligence*: "A machine may be deemed intelligent when it can pass for a human being in a blind test."

1951

Univac, the first commercially available computer, is constructed by Remington Rand for the U.S. Bureau of Census.

•

Grace Hopper conceives of a program known as a compiler.

1956

With the help of Marvin Minsky, John McCarthy, an assistant professor at Dartmouth College, coins the phrase *Artificial Intelligence* (AI).

1958

IBM estimates that five large computers are all that will be needed to satisfy all of the world's data processing requirements. IBM passes up the chance to purchase a small company that has just developed a process known as Xerography, discounting the technology as "unimportant."

1959

The IBM RAMAC, the first disk-based computer of consequence, uses disk platters four feet in diameter.

•

Grace Hopper develops the compiler.

1960

J. C. R. Licklider formulates the goal of interactive computing in his paper "Man-Computer Symbiosis." Interactive computing implies a continuous dialog between user and system, as opposed to batch processing where data is accumulated over a period of time and then submitted without any intervening response from the receiving unit.

•

Project Multiple Access Computing (MAC) explores interactive time-sharing computing at MIT.

1961

Robert Noyce of Intel and Jack Kirby of Texas Instruments solve the most important engineering problem of their time: how to integrate all the components of an electronic circuit onto a single flake of silicon. An integrated circuit (IC) replaces thousands of transistors with a single silicon chip. ICs go on the market for $120 each.

The IBM 360, the first programmable computer.

1962

Spacewar, the first interactive computer game, is written by Steve Russell while a student at MIT.

•

Sketchpad, the first interactive graphics program, is designed by Ivan Sutherland.

1963

The first portable electronic calculator is introduced by the Bell Punch Co.

1964

The first criminally prosecuted computer crime. Texas Hancock is sentenced to five years for pirating $5 million worth of his employer's software.

•

The first personal computer (PC), the Linc. It costs $40,000, has a personal filing system, keyboard, interactive display, and is "transportable."

•

Douglas Engelbart of the Stanford Research Institute develops the first Mouse. It is pretty much ignored until 1983, when Apple's Lisa is introduced.

•

Dartmouth BASIC (Beginner's All-purpose Symbolic Instruction Code) is developed by Kemeny and Kirk in order to give students access to big computers with only a semester or two of study.

1967

Alan Kay and Ed Cheadle develop the FLEX computer with multiple windows and graphics. It proves too difficult to use and leads Kay to describe the Dynabook: a computer for under $1,000 that would satisfy the most demanding of computer users: children. Kay realizes that the technology just isn't there to successfully develop his machine.

1968

The Hal computer mutinies in *2001: A Space Odyssey*.

1969

Ted Hoff of Intel introduces a new era in integrated electronics: the 4004 microprocessor. This is the universal engine, a general-purpose, programmable combination of all the elements of a computer on a single chip of silicon. The 4004 is able to address 4K of RAM and perform 60,000 instructions a second.

•

Kenneth Thompson of Bell Labs writes the first version of UNIX for the DEC PDP-7 minicomputer, unleashing the essence of communal computing: remote access and time sharing.

1970

Stanford develops the Mycin inference engine, the first expert system, dedicated to diagnosing blood infections.

continued

1971

Journalist Don Hoefler refers to a 100-square-mile valley southeast of San Francisco as "Silicon Valley" because of all the high-tech industry. So long plums, prunes, pears.

•

Electronic News publishes the first ad for a microchip, the 4004. For the first time the public is let in.

•

The Kenbak-1 PC, the first commercially available PC, can be programmed to make its lights blink in patterns (and not much more). It is aimed at the education market. At $750, 40 are sold.

•

Esquire magazine publishes the first national article on the computer underground. The article details the escapades of Captain Crunch (John Draper) and "phone phreaking," a method of gaining access to long-distance phone lines for free. He accomplishes this wizardry with frequencies generated by blowing into a free whistle packed with Captain Crunch breakfast cereal. Steve Wozniak (the Woz) builds the first "blue box" to electronically emulate the whistle. Steve Jobs helps him market the boxes.

1972

Alan Kay develops the Smalltalk operating environment for Xerox's personal computer, the $30,000 Alto. The Alto has a keyboard, mouse, windows, and a high-resolution display.

•

Nolan Bushnell starts Atari and ships the first arcade computer game ever, *Pong*.

1973

In *Radio Electronics* magazine, Don Lancaster publishes plans for a generalized TV typewriter that will actually display letters and numbers on a television screen.

•

The Micro 8 Build-It-Yourself Kit, using an 8008 chip, is the subject of an article in *Popular Electronics*.

1974

Ted Nelson publishes the handbook of the Hacker's Ethic, *Dream Machines and Computer Lib:* "all information should be free, authority should be mistrusted, decentralization should be promoted, and money is a necessary annoyance."

•

Intel announces another landmark, the 8080, 10 times faster than the 8008, able to address 64K RAM. The 8080 is the first microprocessor powerful enough to drive a *real* computer, and leads directly to the development of the commercial personal computer.

1975

The January *Popular Electronics* has as its cover story the eight-bit Altair micro kit using the Intel 8080 — thousands of micro hobbyists receive the subliminal signal that the era of personal computing has finally arrived. At last there is a machine powerful enough to write software for.

•

The Homebrew Computer Club (the first micro user's group) is founded in Gordon French's garage in Menlo Park, California. Among the luminaries in membership are the two Steves, Wozniak and Jobs, who go on to found Apple Computers.

•

40 different microprocessors are introduced. Few survive.

•

The first full-screen word processor, *Electric Pencil*, runs on the Altair and Sol personal computers. At last, non-technical people can use a micro to do something practical.

•

The first computer store opens in Los Angeles.

1976

Steve Wozniak debuts his masterpiece, the first version of the Apple II (built around the Motorola 6502 microprocessor) to the Homebrew Computer Club. Designed by the Woz and Alan Baum, the goal of the Apple II was to deliver a complete computer in one box: keyboard, power supply, BASIC and color graphics. The computer could be easily hooked to a color television.

1977

Commodore unveils the PET computer for $595, assembled.

•

The first 4K RAM chips begin to show up.

•

Radio Shack releases the first TRS-80 home computer for $399.

1978

The first company-sponsored telecommuting program is established by Blue Cross/Blue Shield of South Carolina to provide employees with personal computers that allow them to key in medical claim forms from home.

•

The first computerized bulletin board is set up by Ward Christensen and Randy Weis. Their phone number is (312) 545-8086, and can still be reached today.

1980

The first 16K RAM chips arrive.

1981

Kenji Urada, 37, is run over by a robot he's working on and becomes the first robot fatality.

•

Adam Osborne releases the Osborne I computer: a 24-pound, luggable complete system bundled with 64K RAM, monitor and keyboard, two disk drives, a serial and parallel port, WordStar, MailMerge, SuperCalc, CP/M and BASIC — all for the unprecedented price of $1,795.

•

Xerox releases the 8010 Star system and 820 micro. The Star, PARC's first commercial computer, is overpriced. The 820 is the same old eight-bit CP/M, very poorly executed.

•

IBM strikes the market with the *first 16-bit microbullet machine*, the IBM PC, built around Intel's 8088. IBM copies the open architecture of the Apple II, making the system totally open to third-party developers.

•

Sinclair releases the ZX80 $100 micro through mail order and the local drugstore. Although puny, it still sells like crazy.

•

The first 64K RAM chips appear.

•

Epson shows off the first laptop computer, the HX-20.

1982

The first 256K RAM chips come on the market.

1983

Time magazine chooses the micro as "Man of the Year."

1984

IBM announces the ability to manufacture 1-megabyte RAM chips.

•

Magazines targeted at computerphiles number 450, the largest number ever devoted to a single subject.

•

Apple releases the Macintosh to rave reviews. Alan Kay says it is the first PC worthy of criticism.

•

The Computer Museum opens in Boston.

1986

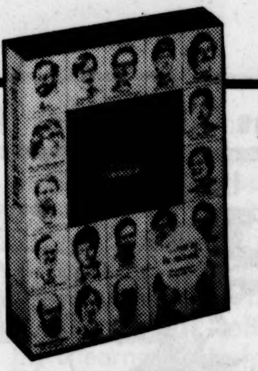
It's possible to buy a 256K PC clone with two disk drives, amber monitor and letter-quality printer for $999.

•

Theories of parallel processing, where information is processed continuously and collectively (instead of in bit-by-bit fashion as in today's von Neumann-type machines) begin to describe the way nerve cells interact to solve problems. The human brain continues to have more memory available than all the RAM manufactured in the world in a year. ■

Programmers at Work

One of the most impressive things about computer hackers is that, in their drive to get more out of hardware, they exploit fresh ways of viewing problems. This outlook is frequently enlightening on subjects that have nothing to do with computers. So in a sense, each of the 19 interviews that Susan Lammers has conducted with some of the major pioneers in microcomputing is more than just a story of how code-hackers actually program. Each is like a kind of Crackerjack box — the Utterly Disarming, Frequently Astonishing Insight is the prize. There's also a fascinating appendix where we see actual code, worksheets, etc. of these wizards. —*Steven Levy*



Programmers at Work
Susan Lammers
1986; 385 pp.
$14.95
($16.95 postpaid) from:
Microsoft Press
Attn.: Consumer Sales
16011 NE 36th Way,
Box 97017
Redmond, WA 98073-9717
or Whole Earth Access

●

Interviewer: What do you perceive as aesthetically beautiful or pleasing in either the listing or the structure of the algorithms when you look at a particular program?

Simonyi: I think the listing gives the same pleasure that you get from a clean home. You can just tell with a glance if things are messy — if garbage and unwashed dishes are lying about — or if things are really clean. It may not mean much. Just because a house is clean, it might still be a den of iniquity! But it is an important first impression and does say something about the program. I'll bet you that from ten feet away I can tell if a program is bad. I might not guarantee that it is good, but if it looks bad from ten feet, I can guarantee that it wasn't written with care. And if it wasn't written with care, it's probably not beautiful in the logical sense.

●

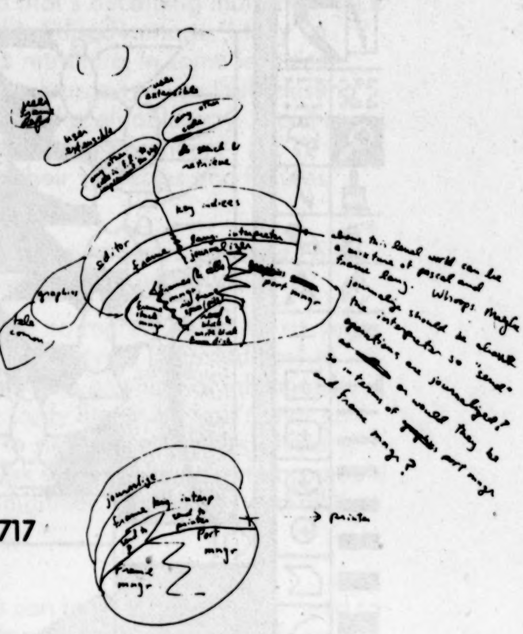
Interviewer: What did you intend the character of Pac Man to be like?

Itwani: Pac Man's character is difficult to explain even to the Japanese — he is an innocent character. He hasn't been educated to discern between good and evil. He acts more like a small child than a grown-up person. Think of him as a child learning in the course of his daily activities. If someone tells him guns are evil, he would be the type to rush out and eat guns, even the pistols of policemen who need them. He's indiscriminate because he's naive. But he learns from experience that some people, like policemen, should have pistols and he can't eat just any pistol in sight.

●

Interviewer: What goals and work rules did you set when you were working on Framework?

Carr: One piece of advice I had been given was to hold off programming for as long as possible. Once you get a corpus of code building up, it's hard to change direction. It sets like concrete. So I held off for as long as I could, but I couldn't hold the design in my head forever.



These layered circles represent Carr's "very early groping towards structure" during development of Framework.

●

Frankston: . . . If you cannot explain a program to yourself, the chance of a computer getting it right is pretty small.

●

Simonyi: The first step in programming is imagining. Just making it crystal clear in my mind what is going to happen. In this initial stage, I use paper and pencil. I just doodle, I don't write code. I might draw a few boxes or a few arrows, but it's just mostly doodles, because the real picture is in my mind. I like to imagine the structures that are being maintained, the structures that represent the reality I want to code.

Once I have the structure fairly firm and clear in my mind, then I write the code. I sit down at my terminal — or with a piece of paper in the old days — and write it.

●

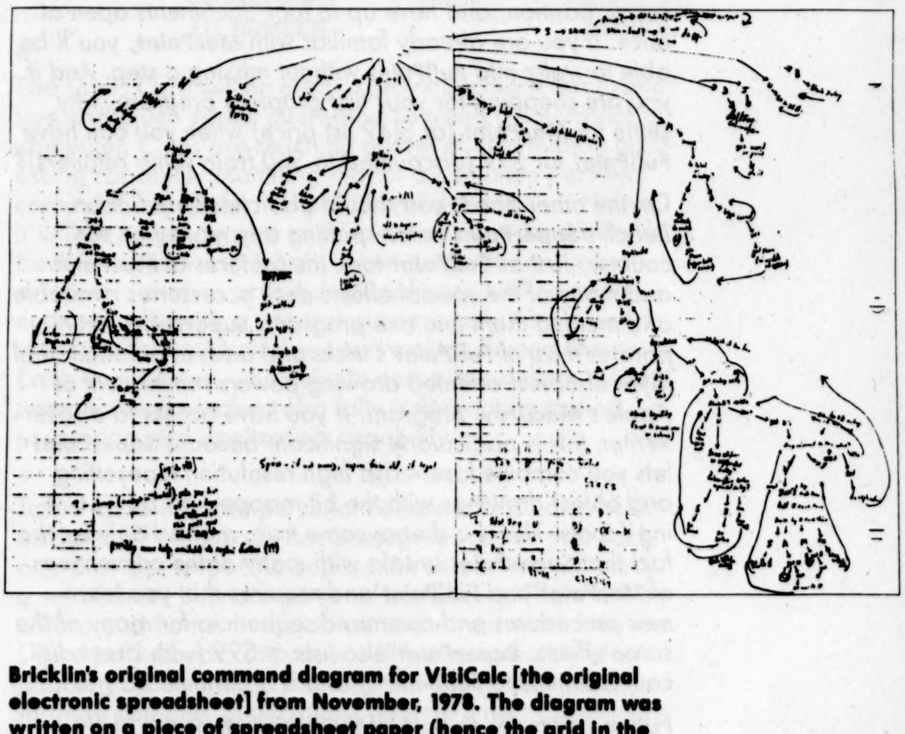
Interviewer: You seem to scorn complexity. When you design a system, do you strive for simplicity?

Lampson: Right. Everything should be made as simple as possible. But to do that you have to master complexity.

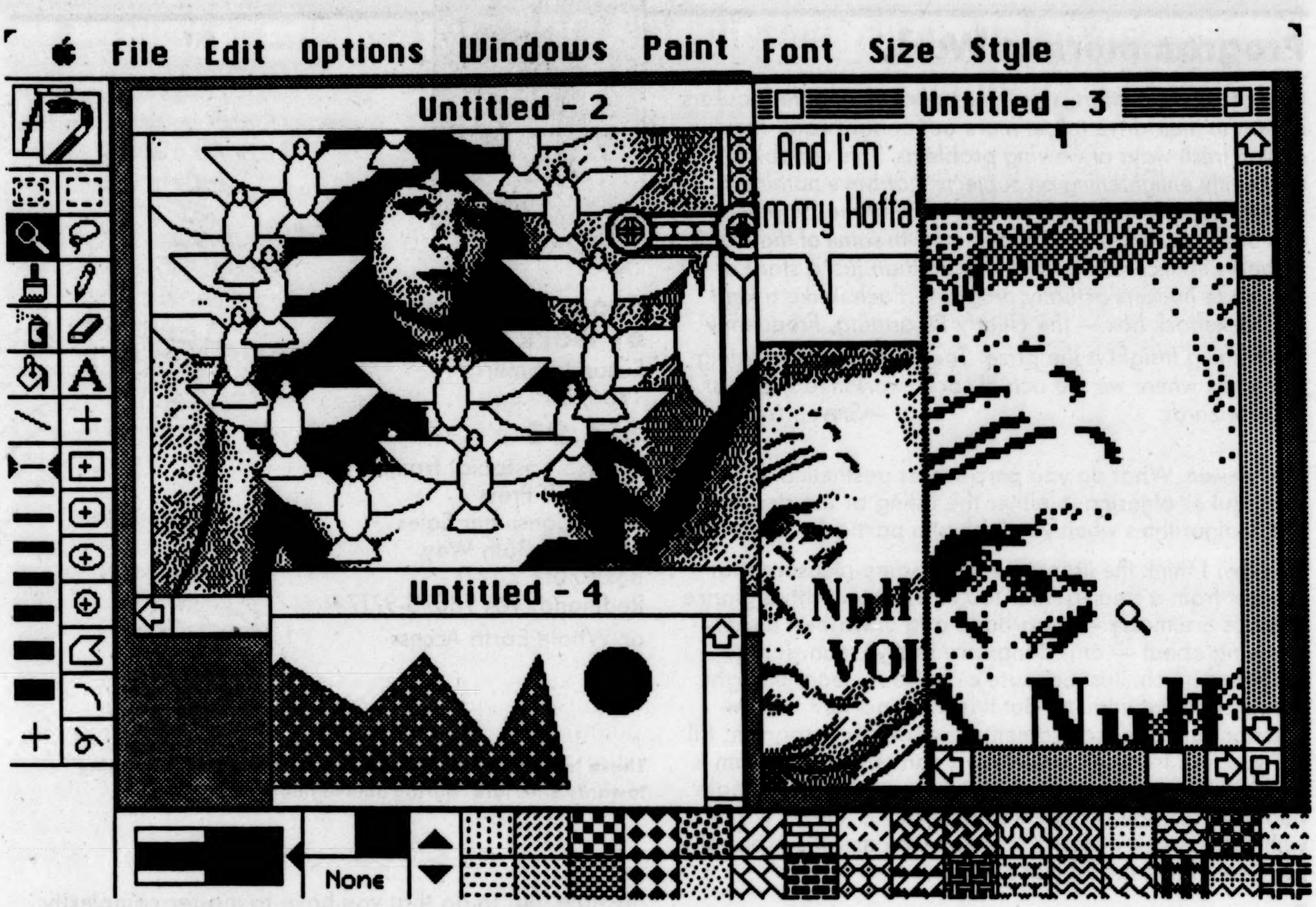
Interviewer: In practical terms, how do you achieve that?

Lampson: There are some basic techniques to control complexity. Fundamentally, I divide and conquer, break things down, and try to write reasonably precise descriptions of what each piece is supposed to do. That becomes a sketch of how to proceed. When you can't figure out how to write a spec, it's because you don't understand what's going on. Then you have two choices: Either back off to some other problem you do understand, or think harder.

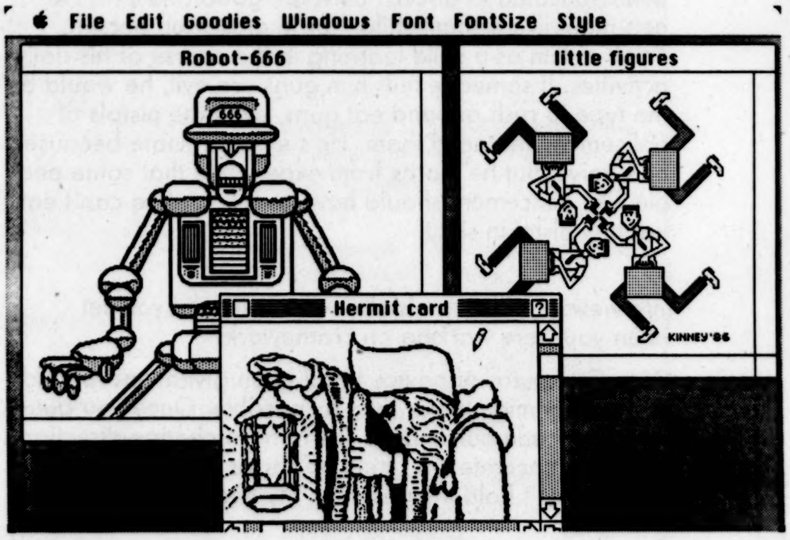
Also, the description of the system shouldn't be too big. You may have to think about a big system in smaller pieces. It's somewhat like solving problems in mathematics: You can write books that are full of useful hints, but you can't give an *algorithm*.



Bricklin's original command diagram for VisiCalc [the original electronic spreadsheet] from November, 1978. The diagram was written on a piece of spreadsheet paper (hence the grid in the program) that Bricklin used in business school.



SuperPaint also allows multiple windows. More significantly, it enables the artist to create layers of bit-mapped graphics and laser typefonts or object-oriented art in the same file. There are also several levels of magnification.



FullPaint enables up to four artfiles to be open at once, allows you to hide the tool "palettes" with a touch of the spacebar and expand any window to full screen size.

FullPaint/SuperPaint

*How do you improve upon genius? That's the challenge Bill Atkinson's **MacPaint** originally presented to would-be competitors. The ease and cleverness with which **MacPaint** presented graphics tools to Macintosh users was initially breathtaking and much admired in the industry. Now that **MacPaint** is no longer bundled free with every new Mac, serious contenders for the graphics throne have begun to appear. These two are the best so far.*

***FullPaint** from Ann Arbor Softworks is basically a finer-tuned, high-performance clone of **MacPaint**. Most of the commands used in **MacPaint** are also used here, and the new capabilities **FullPaint** offers are largely fulfillments of the earlier program's potential. You can now use the whole screen as a drawing area, hide the tool "palettes," distort and skew drawings in several ways, get exact read-outs of cursor position, and have up to four documents open at once. If you are already familiar with **MacPaint**, you'll be able to waltz into **FullPaint** without missing a step. And if you are shopping for your first graphics program, why settle for **MacPaint** (at $149 list price) when you can have **FullPaint** for $99 (discounted to $60 from some retailers)?*

*On the other hand, you should also check out Silicon Beach's **SuperPaint** before putting any money on the counter. Just as **FullPaint** took the features of **MacPaint** and many of the special effects desk accessories available and melded them into one program, **SuperPaint** incorporates most of **FullPaint**'s tricks and adds in an additional layer of object-oriented drawing powers reminiscent of Apple's **MacDraw** program. If you have access to a LaserWriter, this is particularly significant because **SuperPaint** lets you combine laser-crisp high resolution typesetting and object drawings with the bit-mapped art by "painting" tools. This is a dream come true, marred only by the fact that **SuperPaint** breaks with many of the conventions of **MacPaint** and **FullPaint** and requires that you learn new procedures and command sequences for many of the same effects. **SuperPaint** also lists at $99 (with street discounts similar to **FullPaint**'s) and is a genuine bargain.*

*Future upgrades to both of these programs are likely. **FullPaint** has already had one since its initial release in mid-1986 (mailed free to all registered owners), while **SuperPaint** has some empty niches in its drawing-tools palette and is obviously waiting for new features to come. Whichever program you choose, you get a lot of drawing power for a modest price.* —Jay Kinney

FullPaint
Version 1.1; not copy-protected. Macintosh 512K and external drive recommended.
$99.95
(list price) from:
Ann Arbor Softworks, Inc.
308½ State Street
Ann Arbor, MI 48104

SuperPaint
Version 1.0; not copy-protected. Macintosh 512K and external drive recommended.
$99.95
(list price) from:
Silicon Beach Software, Inc.
P. O. Box 261430
San Diego, CA 92126

Playing Hardball with Soft Skills

For a Baby-Boomer like myself, who reached puberty at the height of Beatlemania, did Peace Corps service during the Woodstock-Kent State years, and dreaded the inevitable day when I would have to "sell out to the establishment" in order to survive, this book is a breath of fresh air and new hope. Never before have I dared to believe that I could play the business game and still keep my values intact. This book bridges the gap between a liberal-arts background and the business world in a high-tech age. People with backgrounds similar to mine have figured out how to carve niches for themselves by filling needs that are as new as the latest computer software. I know these people exist: I read about them in this book. So if they can do it, so can I. —*Tom Fink*

Playing Hardball with Soft Skills
(How to Prosper with Non-technical Skills in a High-Tech World)
Steven J. Bennett
1986; 219 pp.

$8.95
($10.45 postpaid) from:
Bantam Books
414 East Golf Road
Des Plaines, IL 60016

or Whole Earth Access

●

My own story is not unique. I've met all sorts of people who've bailed out of dead-end jobs to create satisfying and self-supporting niches for themselves. These survivors share two common attributes: they want to achieve financial security without sacrificing life-style goals in the process, and they have backgrounds in literature, history, fine arts, psychology, and other "soft" fields with no obvious value in a world that's becoming more high-tech every day. Yet, despite this "disadvantage," they've achieved success without retraining in some technical discipline. Instead, they've learned to use their existing skills and abilities in new and profitable ways. I call my fellow survivors "Soft-Skilled Entrepreneurs" (SE's), and have learned much from their successes and failures.

●

" . . . If anybody'd told me seven years ago that I'd be in advertising, I think I would have gotten sick."

Donald Itkin, however, has no regrets about his six years in academia, because, as he says, "I learned how to learn. As a result I can absorb any kind of information very quickly. When you study literature, you're not just studying literature, you're studying everything: history, philosophy, science. I think everyone in advertising should get a master's in the humanities. You really need all that information."

●

As all SE's discover, you can learn whatever you need to know by doing and asking. A business degree doesn't guarantee success, and it may even be a barrier to success. Gayle Moeller, who helped conceive and develop a brilliant idea for a chain of airport spas, puts it this way: "Being less experienced and less skilled has actually been to our benefit, because my partner and I thought that anything was possible. We overcame our inexperience with research. It was a process of seeking out those people with the insight and experience to answer the questions we *had* to know. We learned that persistence is one of our best assets. Anybody can make it if they dig deep enough and stick to it."

Smart Cards

Automated teller machine cards are only a first step. Combine those with card-sized calculators and computer network connections, and you get — what? At the very least, electronic i.d. cards that pay your bills, punch your time clocks, and keep track of your daily progress through the world. At the most, pocket-sized windows for you to know about the world — and the world to know about you.

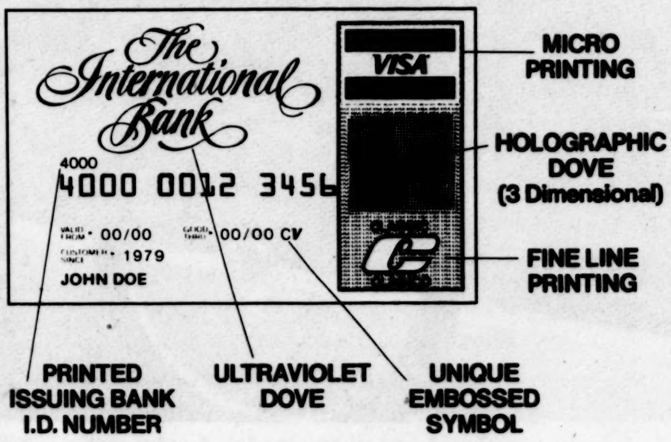
The author, apparently an electronics engineer, considers smart cards A) a good thing and B) inevitable. I look at this book as you might look at a new power-plant proposal for your city. It's a necessary document, but what we need to see — before these things are instituted, please — is an independent environmental impact report. —*Art Kleiner*

Smart Cards
(The Ultimate Personal Computer)
Jerome Svigals
1985; 204 pp.

$24.95
postpaid from:
Macmillan Publishing Co.
Front and Brown Streets
Riverside, NJ 08075

JEROME SVIGALS

The datakey Smart Card.



The VISA electron card anti-crime features.

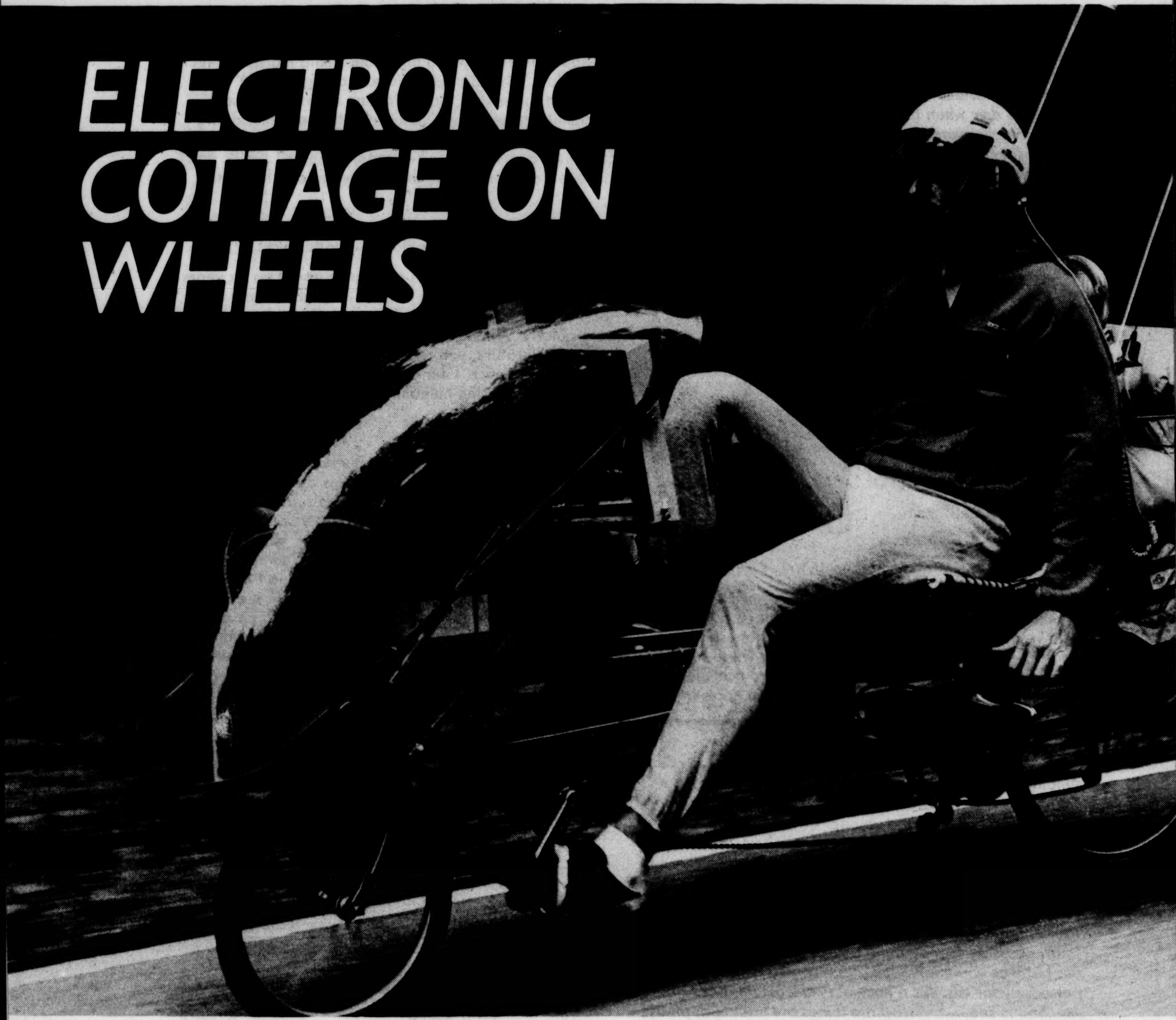
●

The Smart Card will be used to provide a much less expensive and much easier alternative to using a conventional computer. Chips are reaching a level of information processing capability matching that of a complete personal computer, except for the peripheral devices. . . . Hence, it will be less expensive to produce and use Smart Cards. Each of these Smart Cards, when used with an appropriate information processing appliance, will compete economically with a general purpose computer or work station with its prorated support and dedicated line costs. Each Smart Card, which might cost a few dollars, would contain the equivalent of a fully tailored information processing and application capability.

●

Tomorrow's ultimate personal computer is a hand-held package. The package has been prepared so that each one provides a specific application result. We will carry a set of these ultimate personal computers. There will be a library at home, in the office, and at our work location. Like a pocketbook, the cover will be immediately identifiable as to its application area and expected results. In more complex applications, several Smart Cards will be used.

ELECTRONIC COTTAGE ON WHEELS



by Steven K. Roberts

IN RURAL OHIO, among the white clapboard houses and autumn maple trees of Christiansburg, the sun glinted off the solar panels of my eight-foot-long recumbent bicycle. I was hunkered over my bicycle's computer, which was plugged into the town's only pay phone, linked via satellite with a distant publisher. Tiny letters of text scrolled across the liquid crystal display screen.

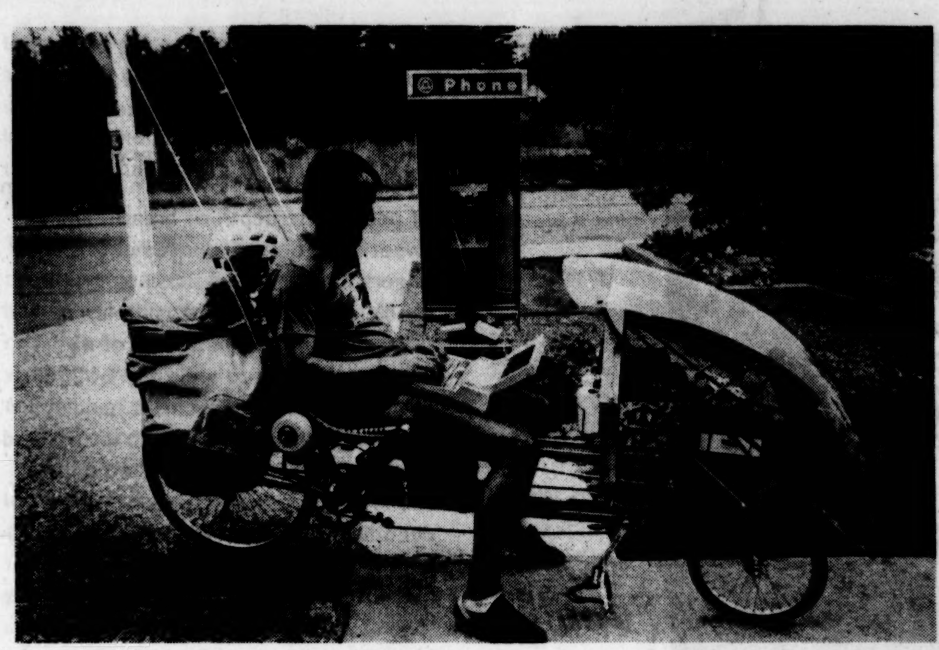
An old farmer rattled up to the curb in his battered pickup, squeaked open the door and headed for the M&M Cafe, wearing a corn herbicide cap and green coveralls. He squinted at me, then at the computer, then at the modem cable dangling from the familiar pay phone. He looked at the bike, at the strange linkages and controls, at the blinking LEDs — slowly shaking his head at the apparition that had materialized in his quiet town. Suddenly a look of understanding lit his craggy features.

He spat tobacco juice into the weeds and peered at me quizzically. "You with NASA?"

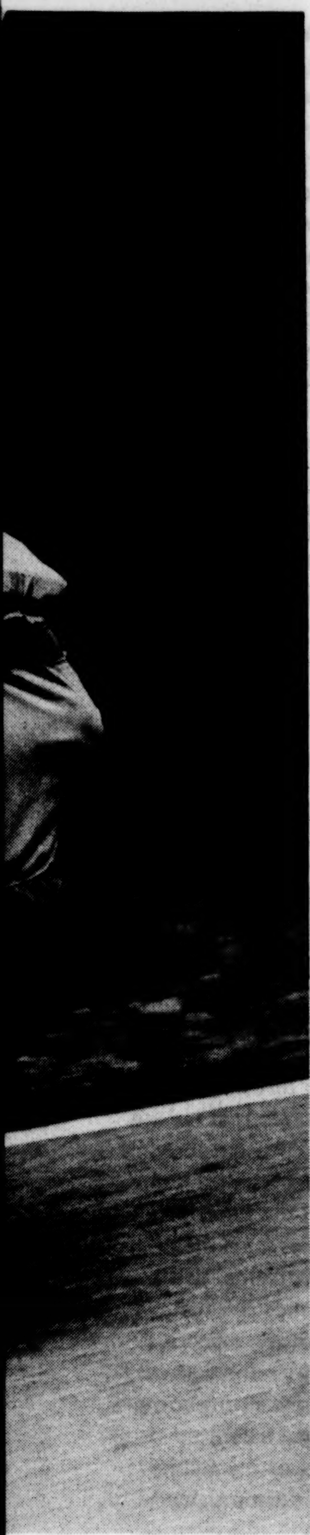
I grinned up at him. "Why, yessir, this here's one o' them Loony Excursion Modules . . ." We stared at each other for a moment like representatives of alien cultures, then both laughed.

The encounter, barely 100 miles into an adventure that has now passed the 11,000-mile mark, set the tone for the whole journey: I am an agent of future shock, frolicking in that strange region where the boundaries between technology and magic blur. I have finally found a job I like: high-tech nomad.

Freelancing through the years, I have slaved away in bedrooms, living rooms, industrial parks, basements, cubicles, and posh offices. The same problem always surfaced sooner or later — lack of change. Sinking into the clutter of my own static space, I would turn to the office distractions: redecorating, making phone calls, creating new filing systems, fiddling with desk toys, and staring at the same old walls. I would do *anything* besides write: even passion can be dulled by a changeless environment.



Steven Roberts uploads a day's worth of writing into the nearest port — a roadside pay phone. From there it travels to a network like The WELL, where it can be sent directly to a typesetting machine, as this article was.



All the comforts of home and office. A tent. A stove. A computer. A shortwave transmitter. A CB radio. Solar-recharged batteries. Naturally the vehicle is dubbed the Winnebiko.

My new mobile office is different. It materializes wherever and whenever I need it — and though there are plenty of distractions, I never have the same one twice. By its very nature, my mobile office is a stimulating place (sometimes even a thrilling one), and for the first time in my career, working is as at least as much fun as playing. In fact, they are inseparable.

I live in a world that is part bicycle, part computer network, and part kaleidoscopic amalgam of lifestyles that span the full spectrum of human behavior. My office is a computerized, 36-speed, 220-pound, 8-foot-long recumbent bicycle bedecked with solar panels and enough gizmology to re-seed Silicon Valley after the Big One. While traveling full time on this machine, I maintain a freelance writing business — the ideal way to get paid for playing. With occasional layovers for major projects, I have been doing this since late 1983, cranking out some four million pedal strokes, and about the same number of keystrokes.

This all may sound idyllic and romantic, but making such a caper work requires much more than chutzpah and leg muscles. How can an intense, information-oriented business — an activity that depends on word processing, photocopying, proposals, filing, business planning, invoicing, and all that — be operated from a pedal-powered contrivance upon which every ounce counts? How can the illusion of stability be maintained when dealing with such staid institutions as banks and insurance companies? And, perhaps most important, what are the tools that have allowed me to break the chains that once bound me to my desk and make a living anywhere with virtually no overhead?

The electronic cottage on wheels that supports my nomadic lifestyle would have been impossible as recently as five years ago. I harbor over a megabyte of memory on board, serving a closely linked network of five microprocessors that work together in a variety of ways. The systems all run on solar power. They roll down the road aboard the latest in human-powered vehicle design. And they communicate with the rest of the information universe through computer networks and packet satellite links. My "Winnebiko" grows as technology grows, slowly evolving along with changes in device physics and software philosophy.

In a sense, of course, this entire caper is a caricature — but it is an instructive and entertaining one, applicable to a wide range of lifestyles and businesses. My "Computing Across America" adventure is a case of personal computers and network communication carried to an exquisitely mad extreme.

INFORMATION FLOW

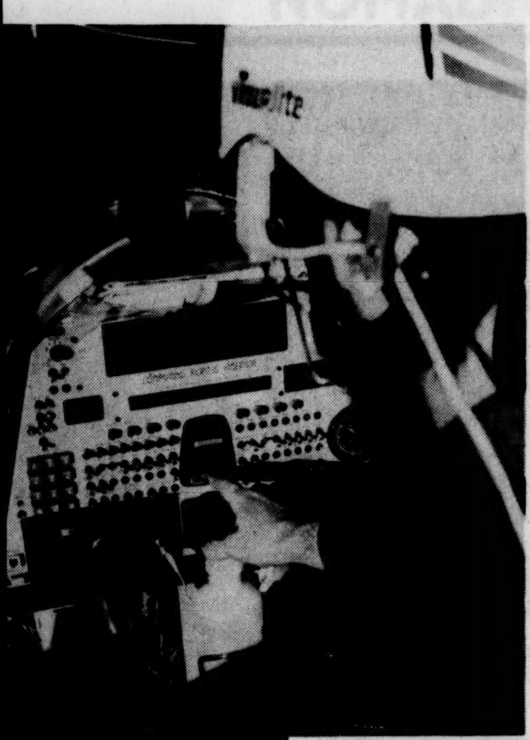
The essence of the journey is information. I inhale it, store it, fiddle with it, and disgorge it in the endless attempt to keep myself alive in the mercurial freelance writing business. This is an ideal enterprise for a nomadic generalist, of course, for *everything* is copy (and words have no mass).

But writing on the road turns out to be an interesting challenge, particularly when the load-carrying capacity is that of a bicycle instead of a motor home. Cassette dictation is a pain, yielding non-editable speech that never seems to get transcribed. Stopping to jot notes is too much trouble. It has to be electronic.

During my first 10,000 miles, I carried only one computer. Though it was an astonishingly robust system (the Hewlett-Packard Portable PLUS), I still couldn't write while riding. Since 10,000 miles corresponds to roughly 1,000 hours of pure pedaling time (half a business year), this is no small matter — I had far too many days of good ideas, good intentions, and no work output.

What I needed in addition to the HP was a bike-mounted system, an electronic web to capture my ideas like passing butterflies and store them for later processing. I wanted to find a machine that would support word processing, long-term file storage, daily electronic mail, and a number of other information-processing functions . . . all on the bicycle itself.

But commercial computers were made for desktops, not biketops. I took a year's sabbatical from the road and dedicated myself to building a different



Resembling the instrument panel of a B-52 more than a bicycle, Mission Control is within arm's length.

Janis Miglaus

Traveling with a companion eases the stress of a pioneering lifestyle. On-board CB radios help communicate on the road.

Janis Miglaus

system. The original intention — being able to type while riding — quickly evolved into a complete bicycle control and communications system — not only turning the Winnebiko into a mobile office but also starting so many on-the-street conversations that anonymity has become impossible. (That's half the fun, of course, given the research potential of social contacts.)

The principles are simple enough. The bike carries five computers, networked together in ways that vary as a function of the type of work in progress. When I'm not pedaling, the only one in use is the HP — an exquisite machine with 896K, electronic disk, and applications software baked into ROM. Articles or book chapters become files, which are then transferred from the first available telephone to my Ohio office via electronic mail on the GEnie computer network (this article, however, was e-mailed through The WELL). The HP performs other jobs (such as managing my hospitality database, a list of 2,500 contacts retrievable by name, location, etc.), but its primary use is textual.

When I'm on the road, everything changes. As ideas flow from the rhythm of pedals, the depth of breath, and the sweet sensations of movement, my fingers dance a quiet staccato on the handlebars. They move as if playing the flute, pressing combinations of eight waterproof keys to yield any of 256 binary codes —a convenient handlebar/keyboard that will type both letters and control characters. Up in the console, the bicycle control processor reacts — decoding the incoming data into a modified Radio Shack Model 100 with 256K of memory. The net effect: smooth, machine-readable text captured while I'm on the road, yielding files that can be downloaded to the HP for fine tuning and subsequent transmission.

Bike writing was the main motive, but with all that solar-powered processing horsepower on board, it was inevitable that a few other functions would emerge. The battery-charging process is now under computer control, as are the security system, self diagnostics, electronic compass, and more. A fourth processor handles speech synthesis (it can read text files out loud and explain itself to curious passers-by); a fifth manages packet data communication via two-meter ham radio. The term "electronic cottage on wheels" is by no means frivolous, and as the trip progresses, other projects slowly get done (or at least started) — for no complex system is ever 100 percent complete.

I'm already plotting the development of the new, improved Winnebiko III — a chance to obsolete all this dedicated hardware I just spent eight months building and replace it with soft instruments . . . a user interface not unlike the Macintosh (under control of a field mouse, no doubt). The displays and controls most important to the task at hand should be the ones that move into visual prominence on the console — with pull-down windows to invoke related functions (even satellite navigation and CD-ROM maps). We have the technology. The only missing links are a low-power, high-resolution display and another year of my time.

THE NETWORK CONNECTION

Full-time bicycle touring raises an interesting issue. What, in the words of Alvin Toffler, can a traveler use as an "enclave of stability" while wandering endlessly across the earth's surface? The bike itself, while deeply familiar and "home" in many ways, is not enough to satisfy that basic need.

My enclave of stability is found on the networks — a strange amalgam of satellite and bicycle, cloud and soil, a place that is no place yet is everyplace at once. Give me a telephone and I'm home: all it takes is connection of the computer and a few typed commands and I cross that familiar threshold, see the GEnie sign-on messages that let me know I'm inside. Beyond those electronic portals I meet my closest friends, keep up with the activities of my Ohio office, publish weekly travel tales, seek help with arcane technical problems, find kindred spirits, and sometimes just hang around bantering with other vaporous denizens of the network — intellectual projections of real humans sitting somewhere on Earth. I wander freely in physical space, returning to my stable home in Dataspace night after night for stability and security.

This is central to the journey, for it provides daily communication without those traditional wanderers' hassles of general-delivery mail and telephone tag. I have an assistant in Ohio named Kelly, who is my full-time universe interface ("that means I pray for him," she explains, only half-joking). All communication is funneled through her: business correspondence is processed and reported online; personal letters are held for the next "matter transfer" event; phone calls are forwarded electronically. She handles money, prints and mails manuscripts to offline publishers, and keeps old friends up to date on my activities. Kelly is my link to business reality, GEnie is my link to Kelly, and the HP computer system is my link to the network.

And home is wherever I happen to be — as long as there's a telephone nearby.

BIKE ELECTRONICS

The computers are just part of the Winnebiko system, though their direct influence extends into every corner and their complexity has required an on-board microfiche documentation library. Of nearly equal value, from the lifestyle standpoint, is the communications gear.

My mobile ham radio station (call sign KA8OVA) is a multimode two-meter transceiver made by Yaesu. In addition to handling packet data satellite communication (see *WER* #50, p. 47) with the aid of a Pac-Comm terminal node controller, it allows me to stay in regular voice contact with my traveling companion, Maggie (KA8ZYW). (Sharing a bicycle tour without some form of communication is frustrating, as anyone who as ever squinted into the mirror for minutes at a time well knows.) With a boom microphone built into my Bell helmet and a push-to-talk switch on the handlebars, Maggie is never far away (effective bike-to-bike simplex radio range is about two miles).

Of course, having two-meter FM capability on the bike also connects me to a vast network of ham radio operators. I store the local repeater frequencies in the radio's memory as I approach an area, and periodically identify myself as an incoming bicycle mobile. Range in this case is upwards of 25 miles, since repeaters are generally in high-profile locations. This has led to a number of interesting encounters, and the autopatch systems often let me make telephone calls to non-hams directly from the bike.

A CB radio is also on board, culturally useless by comparison,but still valuable enough to justify its weight. I can talk to truckers, hail a passing motor home for water (this saved my life in central Utah), and shake my head at the idiomatic yammerings of the residual good-buddy subculture that hung on after the death of the great CB boom.

System security is as important an issue as survival when living on a machine that looks like a rogue NASA creation of incalculable value. But it's not that people try to steal it — most are intimidated by the technology — it's just that some let their curiosity extend to flipping switches and occasionally even climbing onto the seat and bending the kickstand. To alert me to such rude behavior, I added a paging security system with vibration sensors; when armed by a front-panel keyswitch, detected motion causes it to transmit a tone-encoded four-watt signal that triggers my pocket beeper up to three miles away.

Other radio-related devices include a Sony digital shortwave for international broadcast reception, a Sony Watchman micro-TV, and an FM stereo. Naturally, there is also an audio cassette deck, and a compact disc player is planned for under-dash installation soon. With this load, it sometimes takes a lot more than the usual granny gears to climb a mountain.

Then there is the matter of power. All the equipment described so far, plus behind-the-scenes control circuitry, requires electricity — in six different voltages. A pair of 10-watt Solarex photovoltaic panels serves as the primary source, providing about 1.3 amps to the 12-volt SAFT Ni-Cad batteries under ideal conditions. The charging process can be digitally monitored from the front panel, and the bicycle control processor intervenes if its calculations suggest that the batteries are in danger of overcharging. When too many cloudy days occur back-to-back, a power supply with line cord allows refueling from house current.

Generating the other voltages is a complex issue, but suffice it to say that new "switching power supply" devices have made high-efficiency voltage regulation relatively easy. The subsidiary supplies are switched in and out of standby mode as needed, and their outputs are available on the front panel to power tent lights, small radios, and similar accessories.

Other front-panel instrumentation includes the obligatory Cat-Eye solar bicycle computer to display speed, distance, cadence, and so on. This is flanked by an altimeter, a two-line LCD for the Etak electronic compass and other sensors, time and temperature display, and assorted status indicators.

THE BIKE ITSELF

Everything described so far has to be light, protected from vibration, kept dry even in the nastiest weather, and easy to repair on the road. Those requirements are added to an already stringent set of demands on the bicycle, for the total system (including my body) weighs 400 pounds. It must be pedaled up steep grades yet stop quickly; it must not oscillate under any conditions; it must withstand the ongoing abuses of weather and grime and shock and salt and overlooked maintenance.

It had to be a recumbent, of course. Long-distance touring while hunched over one of those old-fashioned diamond-frame machines has always seemed masochistic, a ritual pursuit that drives aesthetics to the most remote fringes of a traveler's awareness. People can overcome almost anything, but why submit willingly to hundreds of hours of acute discomfort?

The recumbent riding position not only allows greater power to the pedals, but also eliminates all the traditional cycling sore spots (shoulders, neck, crotch, and ass). As an added benefit, I can actually see the lands I'm riding through — looking around from my lawn-chair-on-wheels while those on diamond frames stare down at the road. And on top of all that, the recumbent can carry more (try 220 pounds plus rider on a regular bike).

But none of the few commercial recumbents offered the right combination of features and quality, so in the summer of 1983 I began building one in my old suburban Ohio basement. I quickly learned that frame building is a complex art form and turned for help to Franklin Frames of Columbus, an outfit with long experience in making tandem bike frames. "Hey, can you give me a hand with this?" I asked, gesturing at my crude brazing job.

"Uh . . . maybe we should start over."

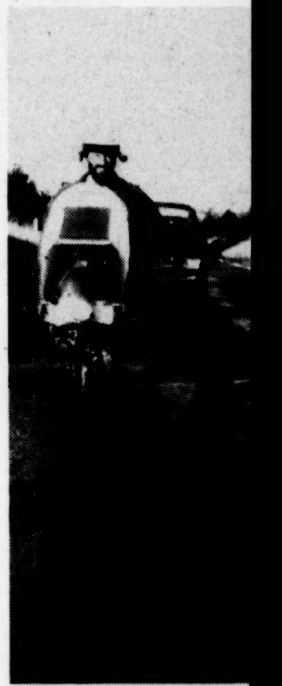
Good advice. The resulting machine was designed for full-time, heavily loaded touring, with thick-wall, chrome-moly tubing, triple rear stays, tandem-style crossover drive, wide-range gearing (later expanded to 36 speeds), and a 48-spoke undished rear wheel with disc brake. The handlebars are under the seat, with a linkage of stainless steel tubing connecting them to the front fork and its 16-inch custom wheel. A stock seat from Infinity Recumbents was mounted with machined aluminum blocks, and the entire machine was fitted with braze-ons to support my unusual needs. I took it from there — using the bike as a substrate for the trappings of my life, changing form every year or so as new technologies become available.

And 11,000 miles later, it's still rolling — a bit worn in places, modified here and there — but as solid and dependable as ever.

All of this taken together yields a remarkably liberating system, providing not only the tools to work anywhere but enough media interest to keep the writing business growing. The whole affair is a cultural door-opener — attracting interesting people in every town and keeping me well provided with story material and personal satisfaction. It's a freelance writer's dream: a self-sustaining existence of tax-deductible, full-time research and subsequent storytelling. For a confirmed generalist, the combination is so addicting that ending the journey may be impossible.

I'm often asked how far, how fast, how many states, how long. The frequent questions along these goal-oriented numerical lines are hard to answer properly on the street: I am here. Period. Tomorrow I might be somewhere else (probably further south since it's winter), but maybe I'll still be here — who knows? If you think too much about where you're going, you lose respect for where you are. ■

Janis Miglaus

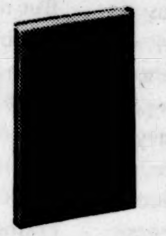


Wherever you are, and wherever I am, we're neighbors in dataspace. If you want to talk about it (or add yourself to my hospitality database), I can be reached through my home network addressed as "wordy." (For GEnie sign-up info, call 800-638-9636.) I also check into CompuServe every few weeks (my id there is 72757, 15) and have just begun tentative long-distance exploration of The WELL (again, as "wordy." Dial 415-332-6106). Throw another logon.

Preservation of Personal Health in Warm Climates

Going to the tropics? Not much bigger than a passport, this tiny red book distills into a hundred pages most of the medical knowledge you'll need to keep on your feet. Don't get hot without it. —Kevin Kelly

Preservation of Personal Health in Warm Climates
1986; 116 pp.



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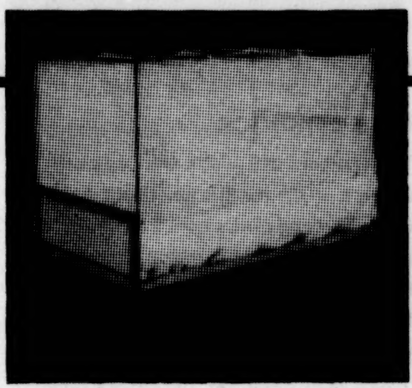
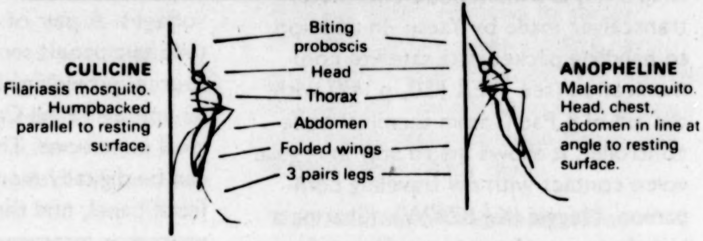


Correct use
Note the reinforcing fringe of calico or like material for tucking-in on the outside of the bed clothes; the vent is absent and the complete net hangs inside the posts.


CULICINE
Filariasis mosquito. Humpbacked parallel to resting surface.
Biting proboscis
Head
Thorax
Abdomen
Folded wings
3 pairs legs
ANOPHELINE
Malaria mosquito. Head, chest, abdomen in line at angle to resting surface.

•

Prickly heat
Perhaps the commonest, and most irritating, of skin troubles in the tropics is prickly heat. It is a red rash which develops into raised red spots; often these acquire a white head. Small children particularly are affected. It appears typically on poorly aerated surfaces of the skin, e.g. where skin rubs skin, where clothing rubs skin, where clothing is tight or adherent, or on that part of the skin surface in contact with the under bed-sheet at night. Anything which promotes sweating will make the irritation worse in those afflicted, e.g. exertion or long drinks of hot tea or coffee.

Alleviation and prevention of prickly heat can be attained by aeration and drying of the skin. Clothing must be reduced to a minimum and be loose-fitting; the material next to the skin should be of a fine, non-irritating texture such as cotton or linen. Children should be naked except for pants; diapers on infants should not be tight. Servicemen during the last war worked dressed only in a pair of shorts, socks and shoes where possible, and this kept skin conditions, particularly prickly heat, to a minimum. At night, a free current of air from an electric fan can be directed across the bed. Cold or tepid showers, without soap, followed by careful drying, but not excessive friction, with a towel, and then the application of a dusting powder, usually relieve the irritation.

•

Some attacks of amoebic dysentery are mild, and clear up in a few days but relapses are common and the infection may lead later to inflammation or abscess of the liver. It is an insidious condition and is a not uncommon cause of ill-health among visitors. People living in warm countries, however, tend to become 'amoebic-dysentery conscious', and many are sure that they suffer from this disease without any good evidence. The diagnosis of amoebic dysentery should only be made when the amoeba causing this condition has been found microscopically in the stools. Those who have reason to feel that they have had amoebic dysentery should have a medical 'check-up' (including examination of stools under the microscope). It is worth mentioning that stools for examination for amoeba must be quite freshly passed, as the amoeba rapidly dies outside the body. There is a cystic form which is much more persistent but which is of doubtful significance in diarrhoea.

Educator's Passport

***Educator's Passport** is essential reading for anyone negotiating their overseas employment contract. Otherwise, important matters — such as which currency your pay will be in — may not occur to you until it's too late.*

The section on the employment interview illustrates the differences between interviews for domestic jobs and those for overseas jobs. For example, family matters that shouldn't be of any concern to a domestic employer are important to an international employer.

Many useful job leads for elementary, secondary and college educators are included. —Walt Noiseux

Educator's Passport
(To International Jobs)
Rebecca Anthony
and Gerald Roe
1984; 181 pp.

$9.95
($10.70 postpaid) from:
Peterson's Guide
P. O. Box 2123
Princeton, NJ 08543-2123
or Whole Earth Access

•

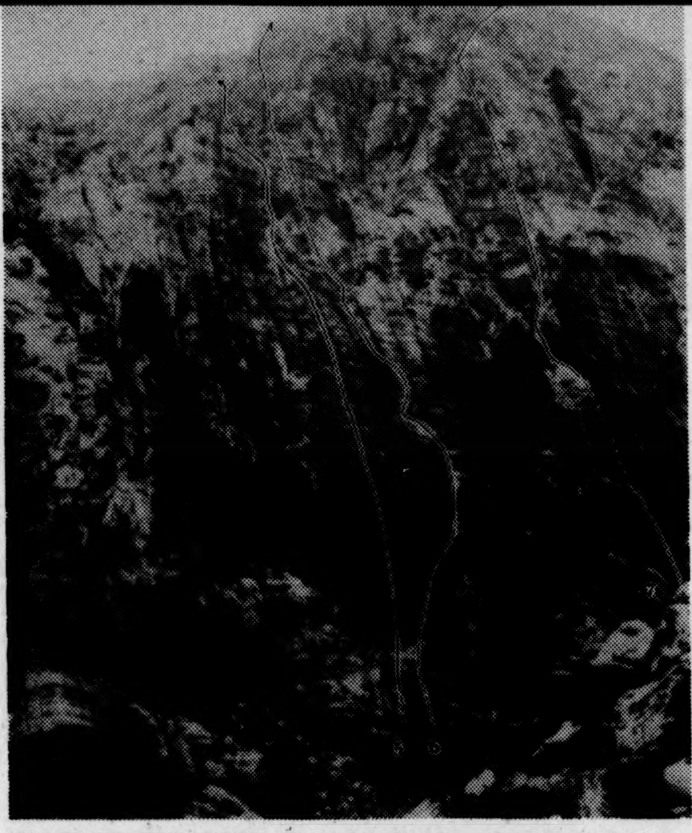
Steven Peterson, a teacher with experience in Europe, offers this useful reminder for new overseas job seekers: "International schools are looking for *teachers*, not travelers." Balancing professional responsibilities with the opportunities to explore new places is crucial to a successful and satisfying experience.

•

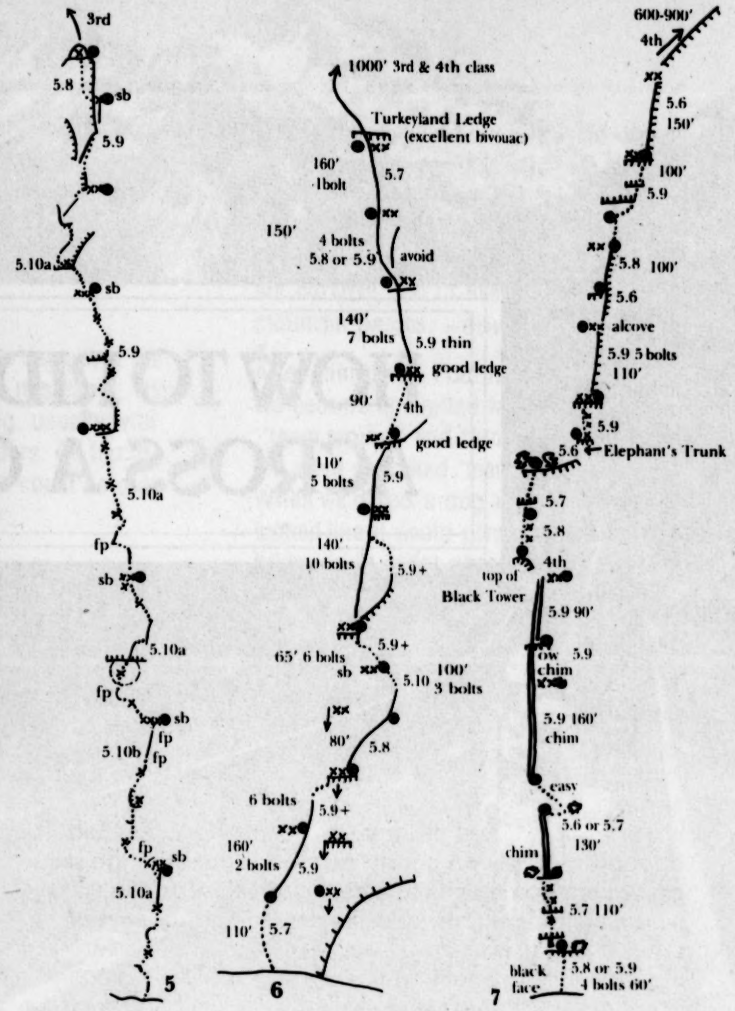
Living abroad offers educators numerous professional enrichments. Regardless of the level or discipline, teachers who spend a year or two in a foreign setting find a new enthusiasm and a fresh outlook on their subject matter and their profession. Among other rewards frequently identified by educators who have returned to stateside teaching positions after working abroad are a growth in self-knowledge and professional stature, a broader perspective on American society, the ability to help others who are interested in international education, and greater confidence in one's ability to teach brought about by firsthand experience with another culture.

•

Some large American businesses and corporation operate private schools for the children of their employees stationed abroad. These schools vary in size depending upon the location and the population served. The schools are governed by a board of trustees and employ certified teachers from the United States to implement a curriculum comparable to that of U.S. public schools. All instruction is in English. Depending upon the company and the location of the school, housing, furnishings, and transportation may be provided for staff members. Salaries reflect the cost of living in the host country and range from adequate to excellent. Host-country taxes may be levied, but some corporations offer a bonus to employees to defray tax expenses.



BLACK VELVET CANYON, the red rocks of Southern Nevada.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5
1000' 3rd & 4th class
Turkeyland Ledge (excellent bivouac)
160' 1bolt
5.7
150'
4 bolts 5.8 or 5.9
avoid
140' 7 bolts
5.9 thin
good ledge
90'
4th
good ledge
110' 5 bolts
5.9
140' 10 bolts
5.9+
5.9+
65' 6 bolts
sb
5.10
100' 3 bolts
80'
5.8
6 bolts
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160' 2 bolts
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110'
5.7
6
600-900' 4th
5.6 150'
100'
5.9
5.8 100'
5.6
alcove
5.9 5 bolts 110'
5.9
5.6
Elephant's Trunk
5.7
5.8
4th
top of Black Tower
5.9 90'
ow chim
5.9
5.9 160' chim
easy
5.6 or 5.7 130'
chim
5.7 110'
black face
5.8 or 5.9 4 bolts 60'
7

The Climber's Guide To North America

North America is a huge area with climbs everywhere. At one time we climbers had only word of mouth to find out about an area; then climbing guides were published. But guides are expensive at $5-$25 a crack, and cover only a small area. The visiting or roaming climber is generally not rolling in money, so guides proved to be no answer. Copyright laws and Xerox machines both were abused to get the route info needed. (I know from the use of many nickels.) But John Harlin III (son of the famed American climber) has come up with a great idea. Using his extensive knowledge and excerpts (with permission) from existing guides, he has put together a series of comprehensive guides. Each guide covers a broad segment of the continent and 15 to 20 areas. Each area has a thumbnail history, climate info and — very importantly — how to get to the area without a car. The routes shown range in difficulty from easy to hard (5.3-5.12), on clear photos and sometimes topographical maps. An Australian friend of mine swears by this guide, calling it "bloody marvelous." I use it too; it's cheaper than 35 guides and it's great for daydreaming about routes done and routes to do.

—*James Suriano*

The Climber's Guide to North America
Vol. 1 (West Coast)
1984; 358 pp.
Vol. 2 (Rocky Mountain)
1985; 396 pp.
Vol. 3 (East Coast)
1986; 397 pp.
$22 each
postpaid from:
Chockstone Press
526 Franklin Street
Denver, CO 80218

Better Boat

What is the best way of covering up those maddening craze-cracks on the surface of your boat? How does one make an icebox that keeps ice for more than an afternoon? This expert, thin (16 pp.), monthly newsletter may be better than your local Old Salt at answering such questions, and is certainly more reliable than advertising claims in slick yachting publications. The information is seasoned by experience, yet it's likely to be much more up-to-date than what you'll find in books — even famous books. As with ***The Practical Sailor*** *by the same publishers, the price can be justified by what you're likely to save by avoiding both mistakes and yacht repair bills.*

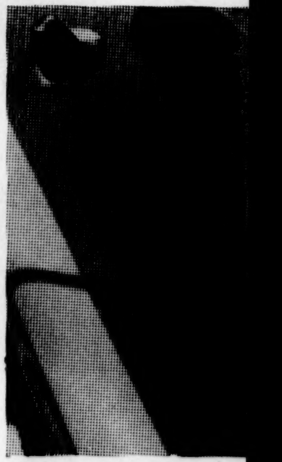
—*J. Baldwin*

•

With a little care, boatowners can do a perfectly adequate job of compensating their own compasses. The objective in compass adjusting is to neutralize the boat's magnetism, not to make the compass point in any particular direction. You can determine the effect of the boat's magnetic field on any compass bearing by simply turning the boat 180°, for the amount that the compass overshoots or undershoots a 180° change is always just twice the effect of the boat's field on that heading. . . .

overshoots or undershoots a 180° change is always just twice the effect of the boat's field on that heading. . . .

The distinctive large diamond pattern of Treadmaster "M", while making it wonderfully nonskid, also makes the material less than comfortable to sit on when wearing shorts or a bathing suit, and can leave your skin looking sort of like you just escaped from a giant waffle iron. The smaller, raised circle pattern of Vetus nonskid has somewhat the same effect. The fairly soft surface and high resiliency of TBS 021 make it the most comfortable nonskid surface to sit on.



Treadmaster M.

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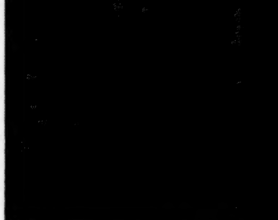

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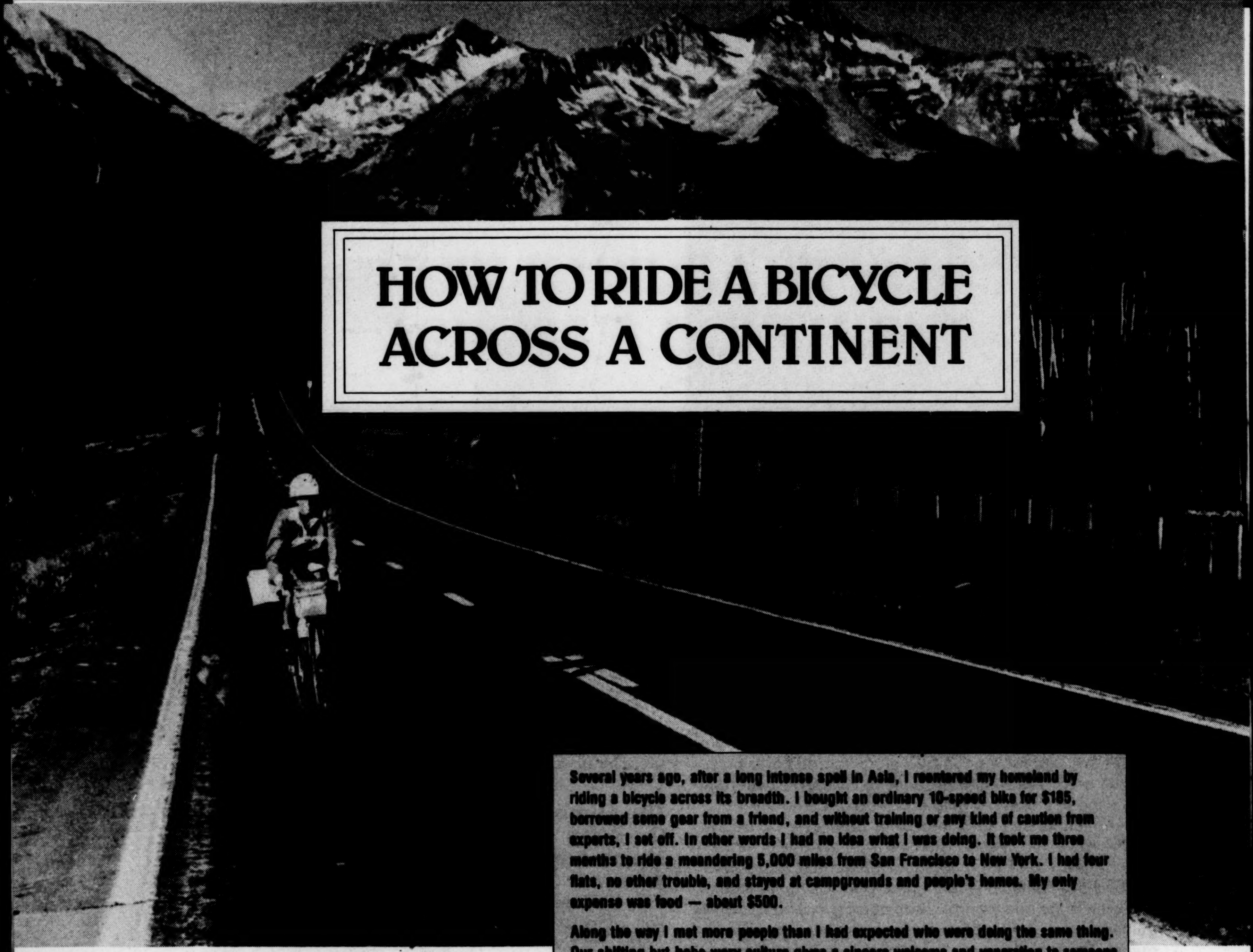


HOW TO RIDE A BICYCLE ACROSS A CONTINENT

Several years ago, after a long intense spell in Asia, I reentered my homeland by riding a bicycle across its breadth. I bought an ordinary 10-speed bike for $185, borrowed some gear from a friend, and without training or any kind of caution from experts, I set off. In other words I had no idea what I was doing. It took me three months to ride a meandering 5,000 miles from San Francisco to New York. I had four flats, no other trouble, and stayed at campgrounds and people's homes. My only expense was food — about $500.

Along the way I met more people than I had expected who were doing the same thing. Our shifting but hobo-wary culture gives a sincere welcome and veneration to someone riding a bicycle long-distance, unlike the cold shoulder given to other travelers, be they hitchhikers, motorcyclists or car drivers. On my own passage I was hugged by hundreds of strangers, and sometimes, while cruising atop a wiry bike on the open road, I felt embraced by the land itself.

Touched by this nirvana, I sought out others. Through notices in this magazine (C Q #37, p. 108) and some bike publications, I was able to contact about 150 people who had also ridden across the American continent. (I estimate there are about 2,000 a year who complete this human-powered transcontinental journey. Keep in mind that the motor — the rider — puts out barely 1/4 horsepower at peak.) Several of my correspondents have pedalled across it more than once, even thrice. I asked each of them the 40 or so usual questions everyone asked me on the road, hoping to find out if they experienced the same golden adventure I did.

They did. Here's how.

—Kevin Kelly

WHAT DID YOU EAT THE MOST OF?

Candy bars and salad. —George Novak

●

From my journal, a typical day's diet: two orders hotcakes, 1 bowl hot cereal, 8 oz. candied orange slices, 3 bags M&M's, 2 cans Spagettios, 1 Quarter Pounder, 1 vanilla shake, 1 dozen Bavarian creme doughnuts, 1 can Raviolis. —Jay Aldous

●

A good rule of thumb is: never eat macaroni and cheese more than three days in a row. I never ate anything out of a can. To satisfy my after-dinner sweet tooth, I needed something that would fill me up so I couldn't eat more. Marshmallows is one choice. 15 cents worth would fill me up completely. —Tod Berlihger

●

I experimented with a vegetarian/all-natural diet on this trip; it worked excellently. I ate lots of fruit (especially bananas, raisins, pears), and bread. —Guy Dahms

●

Peanut butter and jelly sandwiches. —Douglas Merrill

●

Peanut butter and bananas. —Wanda Rarick

●

Mountain Dew, bananas, peanut butter. —Judy Stimson

●

Bread, peanut butter, yogurt. —Neal Teplitz

●

Peanut butter and honey sandwiches on whole-wheat bread. —Stu Sherman

●

Massive quantities of fruit and peanut butter sandwiches. —Harold Pederson

●

Pancakes, also peanut butter and jelly sandwiches. —E.A. Miller

●

Granola and peanut butter and jelly. —Tanya Richter

●

Bread, cookies, pasta, fruit and peanut butter. —Margaret Curtin

●

Peanut butter, ice cream, oranges. —Eileen Kadash

●

Peanut butter and noodles. —Robert Morris

●

Peanut butter. —Michael Rawson

●

I drank a gallon of vitamin D milk each day. 1 qt. after riding at least 20 miles. 1 qt. at lunch, 1 qt. at the end of the ride and a qt. at dinner time. —Walter Schlobohm

●

We would go crazy if we found a smorgasbord or a pizza shop. One night, after a hard day's ride, we were so hungry that we actually ate and drank the leftovers from the table beside us. Of course we waited for the people to leave before snatching up their scraps! —Karen Sandy

WHERE DID YOU BICYCLE FROM AND TO?

Baths. —Michael Rawson

•

Each day we would ride from sunup to sundown. We preferred to end our days in towns where we could slip into a U-Haul van for shelter. —Jay Aldous

•

Both times my ultimate objective was to get from where I was to the East Coast. Along the way I circled places I had always wanted to see or ride through (north shore of Lake Superior, Black Hills of South Dakota, etc.), and mapped the route accordingly. —Bill Nelson

WAS IT BETTER RIDING ALONE OR WITH A COMPANION?

Riding alone or with a companion is a case of apples and oranges. With a companion, my main problems were accommodating different riding styles — speed and when to rest — and alone my main problem was occasional loneliness. It depends whether you get lonely much or not. I will say that when you travel with someone, whether you realize it or not you tend to form a unit — depending on each other for conversation, moral support, sharing happiness — and so interact differently with people you meet along the way. I got the feeling that people were a lot friendlier after riding across alone than I did when I rode with someone, but on reflection I think that was because I reached out a bit more when I was by myself. —Bill Nelson

DID YOU RIDE ON THE INTERSTATE? WAS IT GOOD OR BAD?

Yes. In Arizona — where it's allowed. In California — where it's not, but we did it to have a town in a good distance. If we didn't, it would have been 50 miles to the next town and through desert-like area. We also rode across the Ohio and Mississippi Rivers on Interstate bridges, which was bad. —Michael Neupauer

•

Near Seattle, I rode on what I thought wasn't an interstate. It was and I promptly got a summons. I appeared in court the next day in the true tradition of Alice's Restaurant, fully outfitted in bicycle gear and rear-view mirror on my glasses. The judge asked me to pay court costs (about $3) after I gave him my song and dance. It was quite a highlight.
—David Strom

•

Traffic doesn't bother me; in fact, there is a certain freedom on the interstate not encountered on back roads, an open feeling of mood and place — moving with the fast non-stop traffic, in my own lane. Occasionally we saw other bikers on the interstates (where there were no alternate roads) and it gave me a smug and elevating feeling to wave across six lanes of traffic to them. Drivers seemed to get a kick out of us also. —Margaret Curtin

•

The Interstates are the safest places to ride. —Bruce Olhson

•

I have nothing good to say about the Interstates, they were miserable. They were long, hot, boring, usually with gravel covered shoulders. On top of all that exhaust fumes could be overwhelming. —DR

WHEN IT RAINED DID YOU RIDE ANYWAY?

Many times — either ride or stand in it.
—Mary Elliot

•

With fenders, rain is absolutely no problem. I'll never tour without them again.
—Don Harvey

We both had excellent rainwear. Or at least thought we did. I bought this second-hand Gore-Tex suit complete with the little booties. Stupid things were faulty and didn't keep out any rain. The thing about rain is that unless it's cold (if you're in areas of high elevation) it is not much of a problem . . . so you get wet. You dry out within a couple hours.
—Robert Schwarz

•

I really enjoy riding in a light drizzle.
—Harold Pederson

•

I never allowed just rain to stop me. I always seek shelter if there is lightning close enough to be dangerous.
—Fr. Jerome Schaad

Yes-Yes-Yes, we didn't melt. We rode in thunder/lightning storms, too. —Farnsworth

HOW DID YOU KEEP THE DOGS AWAY?

Shouting, sprays and a Zefal pump — which was unfortunately destroyed around a dog's snout. —Tanya Ritcher

•

At first, I used Halt!, but after my first direct hit I couldn't bring myself to use it again. Conditions vary, but if I can't outride it, scare it, or make friends with it, I'll simply get off my bike until it is safe to go on. —Brent Garrett

•

Started with ax handles; didn't need them so threw them away. Mostly outrode their interest or dismounted and kept bike between us and dog(s), usually until owner intervened. The latter was pretty reliable and we'd do that again. Once a dog caught us unawares doing a slow pace and charged at warp speed down a hill — it was surprising that his head didn't come off when his chain brought him up short. —Peter VanderVen

•

When confronted by a dog intent on running alongside you, snapping at your ankles, try spraying him with your water bottle, and yelling "NO, NO," etc. There is much too much made of this in bicycling mags, and books, though. Dogs should be viewed more as challenges, not hazards, sort of like 9,000-foot mountain passes. —Robert Schwarz

•

After attending a Fourth-of-July rodeo, we became enthralled with the idea of "team roping" and turned it into a bicycle event we called 'team dogging." When we'd spot a dog ahead of us that looked like it would give chase, one biker would sprint ahead to attract the dog's attention and act as the bait. The dog would be so intent on his prey he wouldn't notice other bikers descending from the rear until we'd whoop and squirt water bottles at him. There wasn't one dog who didn't yelp and run for cover. It was quite a humorous diversion for us and we often wondered how soon they'd chase a bike again, but didn't backtrack to find out. —Judy Farout

Photos courtesy of Bikecentennial.

HOW MANY FLATS DID YOU HAVE?

None: solid wire inner tubes.
—Michael Rawson

•

We had 136 flats between the two of us. A large portion of these flats occurred in the desert where temperatures of over 110 degrees were melting our patch glue. Another reason for our high number of flats was that we were both on one-inch tires. Most of our flats were pinches and not punctures. —Jay Aldous

•

Two. One was an old patch that blew out. I attribute my low number of flats to "Mr. Tuffy," which is a strip of tough

plastic that goes between the tire and the tube. It is cheaper and lighter than thornproof tubes and is probably just as effective. There were many times when I pulled thorns out of my tires, but they had not penetrated Mr. Tuffy.
—Susan Brown

●

NONE! I used thornproof tubes with Schwinn Le Tour tires. —Ann Medairy

●

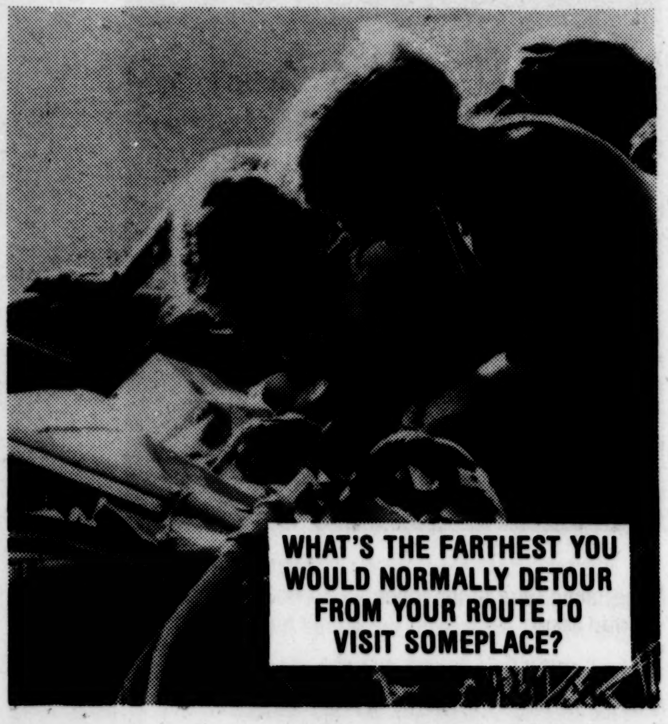
Use 27 x 1¼-inch tires. They are available everywhere. Use Schraeder valves. No gas station can fill a Presta tube, nor have I met a farmer who carries a Presta pump in his pickup. —Dave Boston

●

I had 2-3 flats. All were blowouts during the heat of the day on long stretches or sun-scorched asphalt. Overexpansion and a heavy load combination.
—Guy Dahms

●

I lost count after 100. I got stuck 15 miles from any town as the sun was setting, on a cold night, with no water, on a lonely road, with two flats and one patch. First I patched the bigger leak, pumped the tires up and rode till the one would go flat. Pump-ride-flat, pump-ride-flat. This went on until the tire began to stay flat. I then started to walk. About two miles down the road I got the idea to wrap the puncture with surgical tape from the first aid kit. This worked in keeping the tube inflated long enough to ride to the next town to buy new tubes and patches. I learned later that duct tape can be used in the same way.
—Paul Pettit

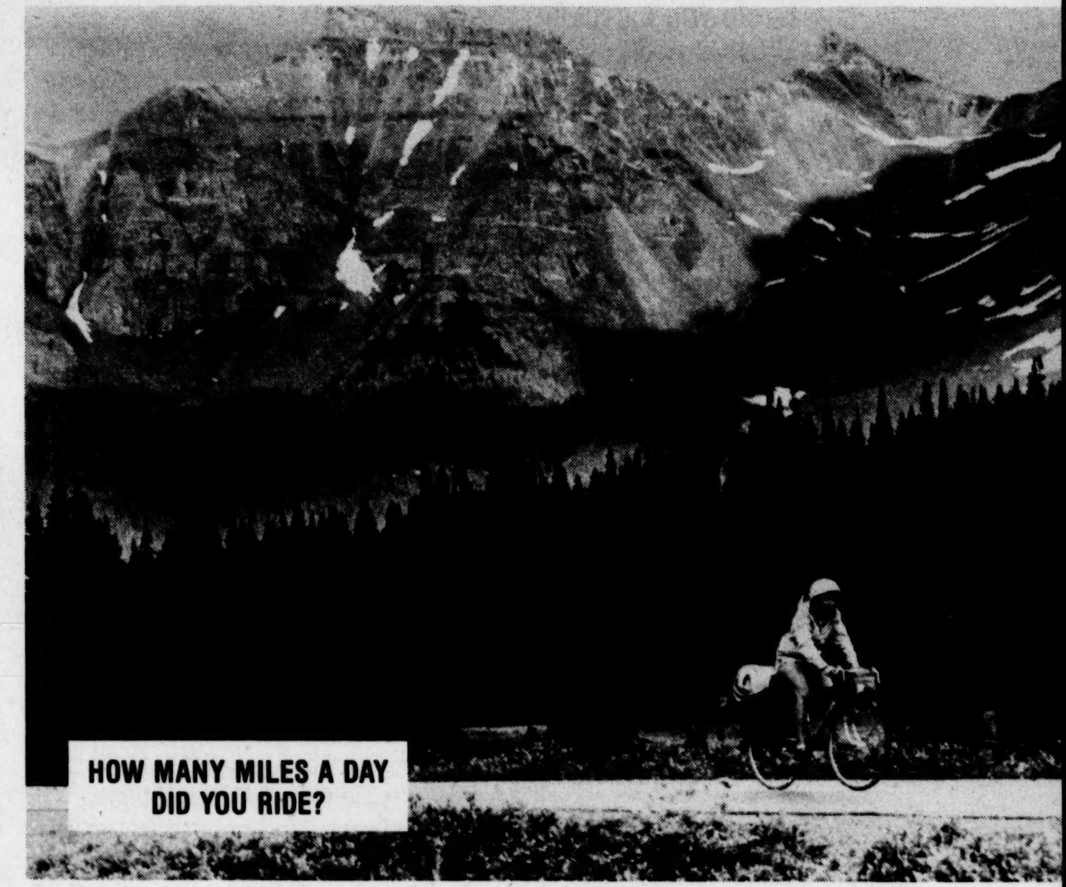


WHAT'S THE FARTHEST YOU WOULD NORMALLY DETOUR FROM YOUR ROUTE TO VISIT SOMEPLACE?

The entire trip was a detour. Very little was planned. We back-tracked once, 40 miles, to do some day-hiking in the Tetons. —BMA

●

I never "detour" from my route; if I wanted to go someplace, that was my route! When I say I zig-zagged across the country, I mean it! —Guy Dahms



HOW MANY MILES A DAY DID YOU RIDE?

Forty to sixty-five miles. I took lots of days off to hide and waste away swimming or just being lazy. I'm not your "Breaking Away" type of person.
—David Strom

●

We rode anywhere from 5 to 91 miles a day. We never missed stopping in a town. —Patty Lorick

●

Ride fewer miles at first, ride as many as you feel like. Don't listen to what is average. A good rule of thumb, I believe, that is useful for beginners, is that if you are in reasonable shape, and the country you're going to tour through is not killer mountains, 70 miles per day is a nice day's ride that will exercise you but not wear you out for the next day. Eighty to ninety means no swimming at lunch and no long stop to read a book.
—Bill Nelson

WHAT WAS ONE TOWN WORTH RIDING 10 MILES OUT OF YOUR WAY TO VISIT?

Silver Plume, Colorado. A not-quite ghost town. —Neal Teplitz

●

Any New England village. Toomsboro, Georgia on Saturday nite. —Phil Norton

●

Wall, South Dakota. Partly because it's one of perhaps three things to see in the entire state of South Dakota, and mostly because you cannot go through the West without seeing advertisements for Wall Drug. Seeing them all the time drives you crazy. Wall Drug is Wall, South Dakota, and it's honkey tonk and ripoff city. But it's one of those things that you have to see for yourself. Then you can ignore the signs for the rest of your life, say "I've been there," and smile smugly.
—Bill Nelson

●

Ambia, Indiana (if you can find it!), home of the superlative, if somewhat marginal, "Hi Neighbor Cafe."
—Margaret Curtin

●

Jackson, Mont., has only hot water and even the toilets steam! —Dave Lefkowitz

WHAT WAS YOUR FIRST CHOICE IN LOOKING FOR A PLACE TO SLEEP? WHERE DID YOU USUALLY WIND UP? WHERE WOULDN'T YOU WANT TO SLEEP AGAIN?

We often slept in people's houses. That's what we looked for. We slept in jails, a zoo, golf courses and a U-Haul. A 10-foot U-Haul is ideal because they carry heavy moving blankets. —David Blum

●

For sleeping, I'm very careful. I've been raided twice in the middle of the night by the town drunks who resented bikers moving in on their territory. With my system, I go sit in front of the store after I've got my groceries and talk to people, answering those same questions that I never tire of. Then I ask them about a camping place. Then I take the best suggestion and ask the police about it. I always make sure somebody knows where I am and I always have permission. I've stayed in churches, fire stations, police stations, even a convent. I was once offered a chance to stay in jail until the police remembered it was Saturday. They have lots of drunks in "dry" Kentucky towns on Saturday night. —Tod Berlihger

•

Unseen is unhassled. I usually get a good low-profile site. —Bruce Olhson

•

It went like this: we'd politely ask if we could pitch tent in the backyard of a stranger, or better yet, of someone we'd met along the way, or someone we vaguely knew of (e.g. someone in one's college class whom we didn't actually know). With luck, any of the following would happen: offers of dinner/breakfast, shower/laundry, even a bed for the night (but no farmer's daughters). This worked out about half the time. We spent four nights in motels. Many nights we actually slept in the tent, on which we fortunately had mosquito netting (essential). The following are the worst places to camp: 1 — KOA campground (twice and never again). 2 — Medicine Hat, Alberta Youth Hostel. 3 — right next to a big highway or parking lot. 4 — saloon-hotel in Bassano, Alberta. 5 — cab of a pickup truck. —Peter VanderVen

•

The most unusual place we stayed was in the flower exhibition booths at the county fairgrounds west of Rickreall, Oregon. Other places we spent the night were hotels, motels, churches, church basements, public and private campgrounds, the 4-H hall in Tribune, Kansas, people's yards and houses, a millionaire's home in Wichita, Kansas, and of course, the "cookie lady's" home in Afton, Virginia. —Randy Rainbolt

•

This is one place where interstates can come in handy . . . the land taken up by the cloverleafs is often forested, and no one will disturb you if it's a semi-secluded exit. —Bill Nelson

•

Inside the public toilet in a national park camping area, head under the commode, feet under the urinal. —Michael Martin

I've slept in graveyards, baseball dugouts, behind outdoor movie theaters (great to see a movie before turning in), police station lawns, etc. No regrets on any place I've camped. Woops! Just remembered I got wet from automatic sprinklers while camping in a park once. —Harold Pederson

Once while sleeping in a town park in Wyoming, the water sprinklers came on. What a way to wake up! We learned from that to put a picnic table upside down on top of the nearest sprinkler. —Marc Lefkowitz

•

When I took people up on their hospitality I didn't feel it was using them but instead a cheap fee for them to hear stories of America. —Tom Mirole

HOW MUCH MONEY DID YOU SPEND PER DAY?

I started my journey with $1,000 in travelers' checks. I began spending too much money early in my trip and had to cut myself down to approximately $10 to $12 a day. Most of this went towards food, of which I ate a great deal more than expected. The remainder was used on camping fees, souvenirs and beer now and then. —Bryan Harrington

$10 a day, mostly pictures and for a six-pack of beer at night (never on the road). —George Novak

DID YOU LOSE OR GAIN WEIGHT?

I lost several pounds and so did my wife; however, the weight tightened us up and she dropped three dress sizes. —Fred Ritcher

•

I'm short and skinny and always gain on bike trips. In fact, bike trips are the only times I ever gain any weight! —Neal Teplitz

•

On our tandem ride the front rider lost 10 pounds but the rear rider gained 10 pounds — resulting in no net loss of bicycling weight — just a shift from front to rear! —Judy Farout

WHAT DID YOU THINK ABOUT WHEN YOU WERE RIDING THE LONG STRETCHES?

On my trips I didn't think too much, which is an achievement in modern society. I believe it was as close as I'll ever get to a blank mind because I wasn't concerned about anything, really, except for surviving that day. I could spend at least an hour deciding my dinner menu, knowing full well that I'd end up with macaroni and cheese. I'd sing Beatles. Sometimes I'd read. I once read a 300 page novel out loud to a friend I was traveling with. I ran over less junk than he did. I would also eat. I could make sandwiches, peel bananas and oranges, and even make a cup of kool-aid all with one hand. —Tod Berlihger

During long stretches I often sang or recited poetry to myself. Kipling's "Ballad of East and West" takes about three miles on the flat, as I recall. —Don Harvey

•

I was "thought out" after two weeks. —David Blum

•

A lot of the day we would sing songs. The songs varied according to what part of the country we were in — "Oh, What a Beautiful Morning," "This Land Is Your Land," "I'm Looking Over my Dead Dog Rover," "Country Roads," "Climb Every Mountain," and so on. —Karen Sandy

WHAT WERE YOU GOING TO BRING BUT GLAD YOU DIDN'T?

Biking shoes — no need. —David Marshall

•

I usually want to bring an extra warm article of clothing, and have been always glad I didn't. Likewise, I usually feel I ought to bring an extra pair of shoes to change into at day's end, because everyone else seems to, but I always elect to go barefoot and am glad for it. —Bill Nelson

More traveler's checks. —Michael Neupauer

•

A better tent which would've weighed another 4 lbs. My $29 special weighed only 3 lbs. and never leaked unless it rained. —Tom Mirole

WHAT WOULD YOU LEAVE BEHIND NEXT TIME?

Solid wire inner tubes. —Michael Rawson

•

Trepidation. —David Pressel

Regular-size towel; a hand towel is enough. —David Marshall

•

My lady's electric shaver. —Eileen Kadesh

If I intended to do a lot of camping I might consider going to a closed-cell pad rather than the air mattress that I had with me on this trip. —Fr. Jerome Schaad

•

Svea Stove, tent pegs, long pants, extra socks, fuel bottle, cook kit, fenders, spare cables & brake blocks, chess set, harmonica, water bucket (collapsible). —Peter VanderVen

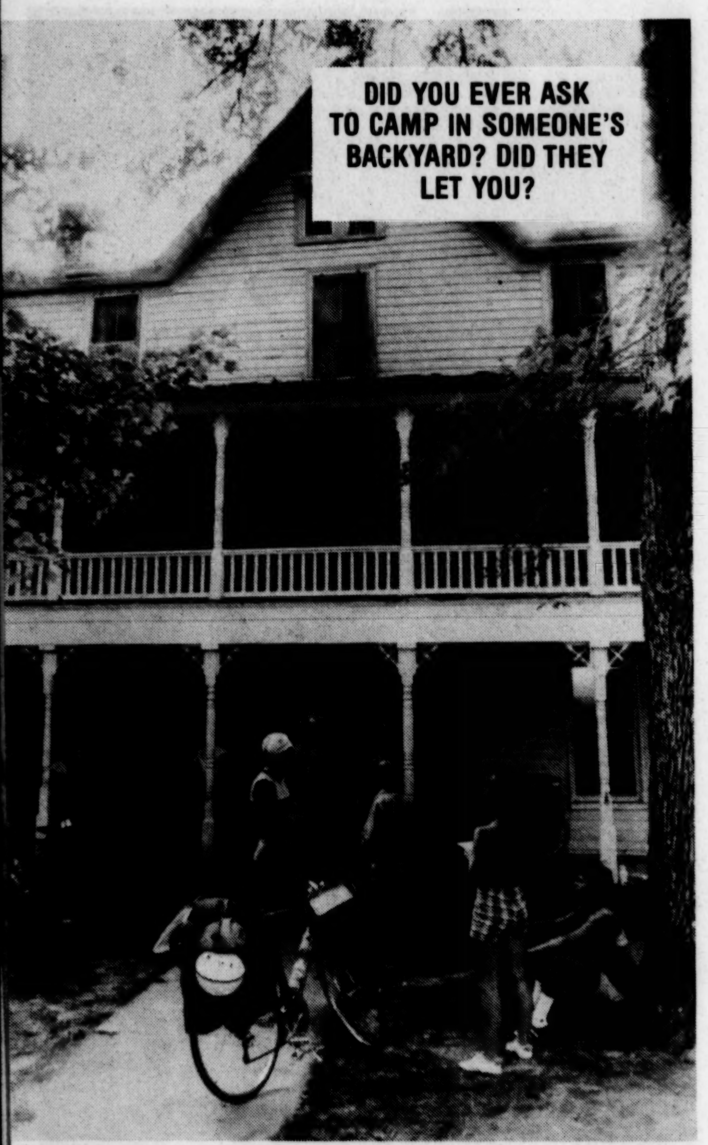
•

I would have made the rock samples I picked up along the trip smaller. —Paul Pettit

The next time I do a long trip, I would leave my mother behind! — No, I'm really kidding. She was a great inspiration the whole time. Believe it or not, she was going on the trip whether I went or not! (Actually I would probably leave my piano music behind.) —Karen Sandy

•

I sent my cycling shoes home. From now on I'm doing all touring in good, heavy, low-top basketball shoes. I find that cycle touring shoes are good for cycling only. They hurt my feet to walk in them, I could not explore in them and certainly couldn't play basketball in them — I played basketball almost every day on my trip. —Randy Rainbolt



DID YOU EVER ASK TO CAMP IN SOMEONE'S BACKYARD? DID THEY LET YOU?

Yes, we had great success here. Often it led to a place in their house. —David Blum

•

Don't be afraid of people. Ask for directions even if you know how to get where you are going. Almost all are interested in bicycle tourers. A couple of apples and a spot somewhere on a college campus invariably results in conversation and a place to spend the night. Being out in the open to meet people is your big advantage — use it. —Dave Boston

•

Recommend the Cyclist's Touring Directory by Mosley [a listing of other bikers who offer a bed. You can only get a copy by agreeing to be listed. P. O. Box 8308, Missoula, MT 59807]. But people should try it more often, not be afraid of "imposing" on others. —David Strom

•

I commonly have success asking people to allow me to set up a tent in their back yard. Somehow I get a feeling based on the looks of the house, the cars, the toys or lack thereof in the yard, and usually get in first time. I've never had to ask at more than three different houses. And the neat thing is, people who are friendly enough to trust you in their back yard will usually offer you a shower, some tea, breakfast, or all three. A good way to meet nice folks. Rules of thumb for asking and staying in people's back yards: do not abuse the concept. Ask only when you can find no other place to stay, when you wish to be in the area in the a.m., such as for a town stop or some amusement you wish to see, if it's getting dark, or if you have a breakdown. I have a feeling that the reason people so often allow one to stay in their back yards is because it is novel and/or because others who have stayed have been polite. Be polite, neat, and courteous. You represent the world of bicyclists to your hosts. People could quickly regret letting you stay in their back yard if it meant also that you needed to get water, use the bathroom, take a shower, use their stove. Try to get water beforehand, try to bathe beforehand. Consider how much you want to impose on these helpful people. If you need to cook dinner, walk to the park down the street; few things put people on edge more than a stranger fooling with a guttering gas stove a few feet from their heavily mortgaged home.

Say thanks in the a.m. (though they'll usually wake you up, for coffee and eggs — that's been my experience).

Don't be discouraged if one or two give you the fish eye and turn you down.
—Bill Nelson

Yes — often, yes — always. —Phil Norton

•

Yes — especially in the South. Responses seemed to be about 50/50.
—Guy Dahms

DID YOU EVER RIDE AT NIGHT, SAY WHEN THE MOON WAS FULL?

Riding at night can cause you to miss good scenery and/or hit bad potholes.
—Harold Pederson

•

Yes, we rode for three nights in Kansas when the moon was full mainly to avoid strong headwinds which started every morning around 9:30 and continued until dusk. And Kansas was such a perfect place for night riding — straight, level roads, very little traffic. We were also avoiding the 95-100 degree temperatures during the day. —Susan Brown

•

I do not recommend riding at night, but if you must, I recommend having a beacon (amber) that flashes 60 times/minute. —Robert Morris

•

Yes. I rode one night in New Mexico. This was one of the finest experiences of my trip. Before me: a beautiful sunset; beyond: a distant mountain range, then the gradual fading of the sun's light and the mountains' outlines; beside me: a long train with its lone light and plaintive whistle a few miles off, yet because of the clarity of the air and terrain it seemed a toy that I could reach out and touch. —Paul Elmendorf

SOME BICYCLISTS HAVE STAYED IN COUNTY JAILS AT NIGHT FOR FREE. HAVE YOU?

Yes, in Stacy, Minnesota. —David Blum

•

None of us did that, but we did camp out by police stations and fire departments — they allowed us to use their restroom and shower facilities. —Robert Morris

•

Yes, one night in Corbin, Kentucky. And yes, the door was left open. —JB

•

I tried at least four times to wrangle a space in local jails. In Marengo, Iowa, the good ole boys told me that all I had to do was get myself arrested and they'd be glad to lock me up for the night. Couldn't leave till after the magistrate saw me the next day, of course, at 11 am. —David Abramson

•

Yes, it was a VERY BAD EXPERIENCE. They booked me as a "sleeper" and put me in with the prisoners. I vow never to repeat the experience. I obey all laws!
—Bruce Olhson

•

In Waverly, New York, I was offered (and accepted) a jail cell with bunk, mattress, pillow and sink. —Don Harvey

HOW MANY POUNDS OF TOOLS DID YOU BRING? WHICH ONES DIDN'T YOU USE?

Probably five pounds. I only used my knife and screw driver. Others used my wrenches and files. —Ann Medairy

•

I carried about five or six pounds in tools — most of which I never used except for a couple of Allen wrenches and a spoke-tightening tool. —Thomas Bradford

•

We needed a crank puller-tightener and were able to acquire one in Cadillac, Michigan. Otherwise, used small Mafac kit, pump, patch kit (never mastered repairing sew-ups) and never mastered wheel truing, an important skill. Other major repairs: replaced one axle and one gear cable. —Peter VanderVen

•

Maybe three pounds of tools. Least-used tools are the hub-cone adjusters, the crank remover tool, and the chain-breaker. —Bill Nelson

•

I took approximately three to four pounds. Invaluable tools: pocket vise, spoke wrench, cone wrenches, 8-9-10 Y-wrench, adjustable wrench, needle-nose pliers, alloy tire irons, 5-6 mm Allen wrench. —Randy Rainbolt

•

Twelve lbs. Used them all. —Bob Farout

WHAT PART OF THE TRIP WAS THE EASIEST?

The things that make touring difficult for me are heavily populated areas and bad weather. One of the most pleasant segments of my trip was the desert. Vast distances of nothing; just me, my partner, and Elsie (my bike). —Jay Aldous

•

From McCall, Idaho to the bottom of Hell's Canyon. It was approximately 70 miles, all downhill.

The best and easiest part of the trip occurred after passing by the "steep downhill grade" warning signs. I loved to speed down off the mountain passes, often with my head low and using little of the brakes. I always checked my quick releases at the top beforehand.
—Bryan Harrington

•

The Plains was the easiest, even though we had a headwind the whole way. Flat, straight-line riding, little traffic, almost no chance of getting lost. Mountain riding was the most exhilarating, but it was the Coast highway that was the most stupendous — varying topographies, the ocean, the smell, the view, aaahhh. —David Abramson

•

I'm not sure which part of the trip was easiest, but I think the plains and the last week are the hardest. The end of a trip is as hard as the beginning. It's a letdown. From the early planning stages, that end town is abstract. It's mostly to have an answer to one of those common questions. It's not really a goal. If it were someplace you really wanted to get to, you could have taken a plane.
—Tod Berlinger

HOW DID YOU CARRY YOUR WATER?

Normally the two bottles were enough water for me. For the three or four places where it was 90 to 100 miles between known water sources, I also filled a folding water sack. I clipped this to the eyelets on the rear of my saddle, and kept it from moving with nylon straps to the sides of the rear rack. I did carry water purification tablets with me in case of an emergency; but I never had to use them. —Fr. Jerome Schaad

•

One person in our group had extra H_2O in an I.V. container. —Ann Medairy

•

Experience taught us that in hard, continuous pedalling we would consume about one bike water bottle full of water per hour without urinating. As it turned out, we drank even more than that particularly when crossing the desert areas. We carried on board seven bottles for water. Usually, we kept only three of them full till we got to the desert. Occasionally motorists would stop and ask us if we had enough water. They would offer to fill our bottles and even gave us cold water to drink on the spot. Some even offered us cold beer which we refused, not because we were nondrinkers, but because we were afraid of dehydration.
—Thomas Bradford

•

Carried two 1-quart plastic syrup bottles (with the built-in handles), which I filled for those waterless campsites and extra-long dry stretches. —Guy Dahms

WHAT WAS THE MOST COMMON DEAD ANIMAL YOU SAW ALONG THE ROAD?

Do snakes count? —Jerald Byrd

•

In Wyoming the most common road pizzas were jackrabbits. —Susan Brown

•

Varied with the region: snakes in Texas, armadillos in the South, small rodents in New England and grasshoppers in the Northern plains. —Jay Aldous

•

One thing that amazed me was how many broken bungee cords I saw, especially in British Columbia and Washington. Most of them were of the flat rubber type; the round fabric covered variety was much more rare. One day I kept count of the broken cords that I saw; they averaged one every 2½ miles. I couldn't help wonder how many items people lost because of broken bungees. And I wondered whether the people making and selling them were making a fortune because so many replacements were needed or whether they were going out of business because so many customers were disillusioned with them.
—Fr. Jerome Schaad

•

Depends on the area . . . probably the grand prize winner is the opossum, which is ubiquitous and stupid when it comes to cars. Out west, I was struck by the number of dead antelope; about one every one-half mile in eastern Montana and South Dakota. —Bill Nelson

•

Single gloves and license plates.
—Bruce Olhson

WHAT TIME OF THE MORNING DID YOU ORDINARILY START OUT?

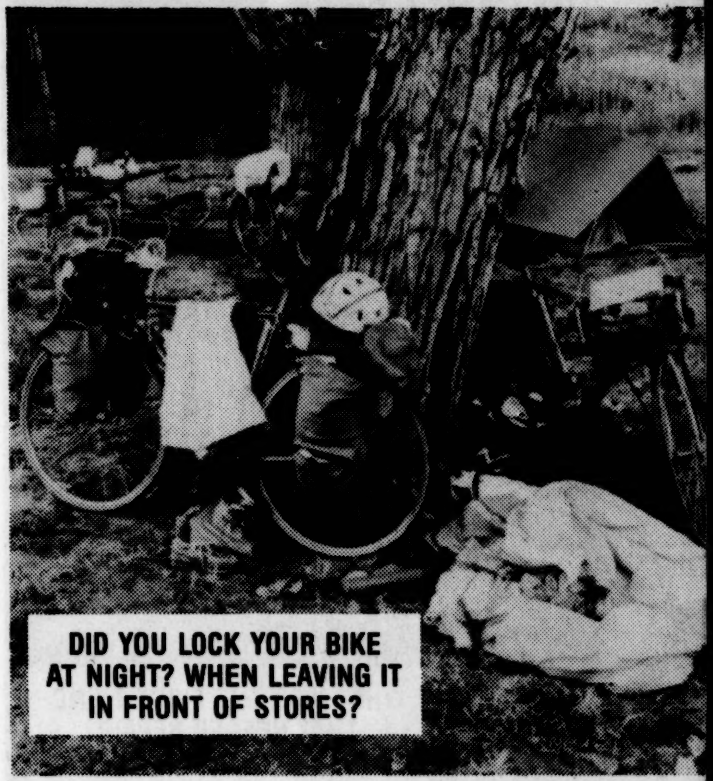
We began riding anytime after 6:30 am, but we always stopped for breakfast at the first diner and got caught for hours reading the paper. —Margaret Curtin

•

I generally rose an hour or two after sunrise, prepared breakfast and broke camp. On the average, I would be on the road by mid-morning, but this fluctuated quite a bit. I made a point not to carry a watch with me, and used an alarm clock only a couple of times in order to get on the road soon after dawn when I was camped in a spot where I shouldn't have been. —Bryan Harrington

•

I usually awoke as the day started to break. I would usually hit the road as soon as it was light enough to be seen by motorists. Many times I had 10 miles in before the sun rose. —Walter Schlobohm



DID YOU LOCK YOUR BIKE AT NIGHT? WHEN LEAVING IT IN FRONT OF STORES?

As part of our equipment we carried six-foot, vinyl-covered cables and a good key lock. Invariably, we locked our bikes together and to a post or tree if we had to be away from them. Also, if we went into a restaurant to eat, we parked near the exit door and sat at a table near that door where we could watch our gear. If we were camping out we pitched our tent near a tree or post and secured them to that. —Thomas Bradford

•

I seldom bring a lock . . . the Citadels weigh close to two pounds. If I can't bring the bike into the store, or at least into the entrance vestibule, I don't shop there. The only real security is being there to watch your bike — what's the sense of locking a bike that has $1000 worth of easily removed equipment hanging off of it? Tips to slow a thief down for the two seconds it would take you to run out of the store are put it in highest gear (hard to get moving), lace a bungee cord through the spokes, fasten your helmet straps through the wheel, bring in the front wheel. If I'm off in the woods, I don't lock my bike . . . but then I'm a light sleeper, and tend to find real secluded places. —Bill Nelson

•

No, kept it with me, tied to tent and my wrist. —Michael Martin

WHAT WAS THE FIRST THING THAT NEEDED REPAIR ON YOUR BIKE?

My bike seat. —Tanya Ritcher

•

A broken spoke. The only parts I replaced over 12,000 miles were one derailleur cable, two spokes, one freewheel and a chain. Between the two of us we used 26 tires. —Jay Aldous

•

Front derailleur was fixed and replaced almost immediately. —Ann Medairy

•

One tip for cleaning a dirty chain on the road — you can fit the entire chain in a soda (beer) can. Remove the top of the can and fill the can with gasoline. Let it soak, then wipe clean with paper towels. Maybe even buy a cheap toothbrush to scrub it. —Stu Sherman

•

I am of the Laze-E-Boy school of bicycle repair when touring; I set the bike up tip-top prior to setting out, then let everything go out of adjustment as it wishes unless it impedes forward progress. At trip's end, the bike needs brakes, bearings, and gears adjusted, wheels trued, and everything lubed, but I seldom do anything but spray the chain while on tour. Dirt roads are an exception.

One of the few things that is really different about cycle touring (as opposed to winter riding, mountains vs. flat, cities vs. boonies, all of which require only subtle adjustments) is long distance dirt riding. There are not too many places in North America where one can go long distances on dirt roads. I made my pilgrimage on the Alaska Highway in 1979; I believe much of what I rode over is now paved. There is still the Cassier Highway in British Columbia, the Dempster Highway in the Yukon and Northwest Territories, and the route above the Alcan up through Dawson, Yukon. Plus a bunch in South America and other countries.

Dirt riding means constant vibration. Long-distance dirt riding means constant vibration for weeks on end. Palms, rear end, feet, neck get sore in a way that one doesn't approach on pavement. Everything comes loose. Everything. Crankset, including the fixed cup, may work itself loose. Bolts holding the panniers on. Brake bolts, cones in the hubs, seat post bolts, etc. The vibration may crack things.

I found myself washing the moving parts three or four times a day; it was a no-win situation, because all the water quickly rusted things. My chain was so badly rusted that after a week of abuse it sounded like a mixmaster, and threw a plate off into the bushes on one particularly steep hill. Numerous times I simply walked into a stream with my bicycle and let the current get the big pieces off.

Why ride dirt? It takes you to some beautiful places. It's a challenge. It's remote. It is, at times, peaceful and satisfying. —Bill Nelson

DID YOU FIGURE OUT A WAY TO KEEP DRY IN THE RAIN?

Ziploc bags are invaluable for keeping things in your panniers dry. —Susan Brown

•

Stay in your tent. Sleep . . . read . . . play checkers. —Jerald Byrd

•

I have long since given up the idea of actually staying dry through a rain. My theory now is that I wear rain gear to keep warm, not to keep dry. On the Alaska trip I took with me a "Slac Jac" by Gerry. Besides having a hood which rolls up into the collar, it also has a pair of pants which roll up into the hem. (They snap closed along the inseam.) I was very happy with this arrangement both for keeping warm and with respect to the freedom of movement that it allowed. Every 20 minutes or so, however, I would have to stick a finger into each elastic cuff and let the accumulated water drain out. —Fr. Jerome Schaad

•

Impossible. —Jay Aldous

•

In warm rain I just got wet. In cold rain I wore shoe covers, gaiters, Gore-Tex pants, Gore-Tex jacketand wet-but-wool gloves. If a climb was followed by a lengthy descent, the Gore-Tex left me dry at the bottom — good stuff!! —Randy Rainbolt

•

Someone could win a Nobel for this, a boon to mankind. —Peter VanderVen

•

I stopped in a small town to buy lunch. While in the store it rained harder. I looked outside and asked the store owner if he had a plastic garbage bag. I recalled a friend telling me about a backpack trip and cutting arm holes and a head hole and wearing the bag. I did likewise. The bag was light, it blew against my body. My legs got wet, but the upper portion of my body and chest stayed dry. I made a stop in Danville, Kentucky in a bike shop and as I walked in the door the owner said I had his raincoat on. —Walter Schlobohm

DID YOU EVER STOP RIDING BECAUSE IT WAS TOO WINDY IN THE WRONG DIRECTION?

No, I never stopped riding because of the wind, but in this category a companion is indispensable for constant prodding onward. —Margaret Curtin

•

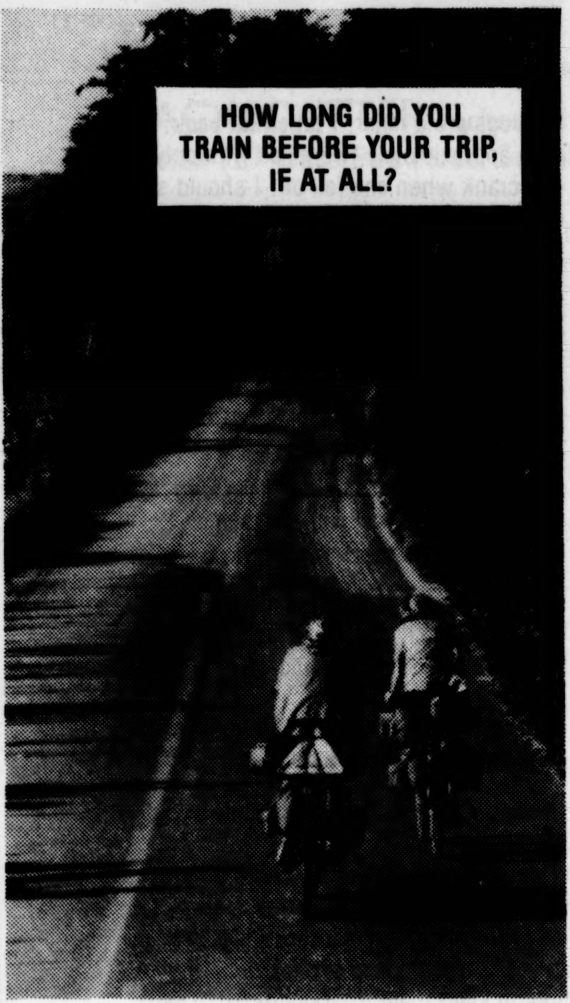
Going through the Banning Pass on the way to Palm Springs we picked up a 40-mph tailwind and with moderate pedaling we managed to keep up with motorists doing 55 mph. We didn't do that for very long because we soon learned that it took forever to stop the bikes at that speed. We smoked some brakes! —Thomas Bradford

•

I blew a tire in the middle of nowhere, Idaho, and had to hitch a ride into Twin Falls to find a bike store. From there, I had a wonderful ride along the Snake River until the road ended in Bliss. Once past Bliss, I returned to the interstate. I was just in time to meet winds gusting up to 70 mph. There was nothing to stop the wind, besides some sagebrush, my bike, and me. I rode for as long as I could and then tried to walk my bike for a while. That didn't work either. As luck would have it, a guy driving an empty truck gave me a lift into Boise. The winds were so bad, the local KOA would not allow me to pitch my tent at their campground! I got smart on my next cross-country ride and went from west to east. —Brent Garrett

•

In Montana a crosswind was so strong that it blew my map off my handlebar bag as well as me off of the road! We stopped and waited for it to let up. —Randy Rainbolt



HOW LONG DID YOU TRAIN BEFORE YOUR TRIP, IF AT ALL?

Two years, two months, hard.
—Michael Rawson

•

None, we bought bikes on Saturday and left Monday! —David Blum

•

In warm weather I ride daily, about 200 miles a week. But the first week of touring is the real training, I have found, on all my tours. Nothing simulates the initial shock of 30 extra pounds. —Margaret Curtin

•

One of us did 500 miles, one of us did 50 but it seemed unnecessary once we got started — it all works out. 1st day: general fatigue and confusion counteracted by zeal; 2nd: sore butt and psychotic depression, realizing the magnitude of the task — but it's the 1st real day out; 3rd: more soreness and chafing and fatigue. 4th day we began to hit the groove and find power, confidence. —Peter VanderVen

•

My training consisted in everyday commuting in D.C., about 25 miles a day. My skills were sharpened at this time, my survival skills, that is. I worked at night and often on weekends, so I would continually ride through an ocean of drunk and crazy drivers. The only accident I had was in Rock Creek Park, though, when a roller skater forced me off the road! —Brent Garrett

•

Train? —Randy Rainbolt

WAS RIDING ACROSS AMERICA ON A BICYCLE A SAFE THING TO DO?

I don't think it could be considered safe, but the tradeoffs make it well worth it. Being with people from the unprotected medium of a bicycle allows them to open up to you in a way that could not be accomplished with a car, motorcycle, plane etc. —Jay Aldous

•

Concentration is the key. Be as visible as possible and DO wear a helmet.
—Dave Boston

•

We not only obey all traffic laws that apply to bikes and automobiles, but we also ride as if we're invisible.
—Thomas Bradford

•

Yes. More people are afraid of me than I am of them. Physical safety is not a problem. It is helpful to look poor but intelligent. You stay out of trouble on tour the same way you stay out of trouble at home: don't do anything stupid. I also try to minimize my contact with drunk/drugged people, as they are unpredictable. —RC

•

For two guys in their twenties with a lot of common sense: absolutely. Just watch out for the killer rearview mirrors on the Winnebago trailers in park areas.
—Robert Schwarz

•

We never rode at night and we wore a "fanny-bumper," which is a fluorescent orange triangle worn on the rider's back.
—Karen Sandy

•

One odd question asked of us was "Don't you carry a gun?" Of course we didn't carry a gun. We didn't have any problems with people on either trip — except two incidents in Kentucky. —Kay S.

•

For two women, two small women, it was very safe. We were harassed only a few times. Mostly people respected us or tried to protect us from the world.
—Patty Lorick

I GOT OFF MY BIKE AND WALKED IT SEVERAL TIMES. DID YOU?

Sometimes if a particularly beautiful sight was before or beside me, I would just walk on the road for a while instead of stopping. —Paul Elmendorf

•

Much to my surprise, I never had to walk up a hill. I never even went into my lowest gear until I got within 60 miles of Alaska. —Fr. Jerome Schaad

•

We never walked our bikes up any hill because of the grade. I remember clearly the sign in California at the base of the Sierra Nevada Mountains, stating that the next 15 miles had grades of 8 percent to 16 percent, and we rode it all. On the way up we were photographed and handed off the picture further up the hill. It was a great feeling to say we rode up that climb. —Bill Irving

•

Yes — I've never met a hill yet I couldn't walk up — it's OK! —Mary Elliot

WHERE WERE YOU MOST SURPRISED TO MEET ANOTHER BIKER?

One who was a special inspiration to me was a 71-year-old man bicycling from Seattle to Minneapolis. He wasn't going very fast, but he had already made it halfway when I met him. I have no doubt that he completed the trip.
—Fr. Jerome Schaad

•

I was on the road for 16 days before meeting a fellow bicyclist. I was enjoying the scenery of the Tetons in Wyoming when suddenly he appeared cycling towards me. It took me totally by surprise. He was on a journey to the World's Fair in Nashville to look for a job, and seemed to live on herbs and seeds. —Bryan Harrington

WHAT DO YOU WISH SOMEONE HAD TOLD YOU BEFORE YOU LEFT?

That it would end and I'd have to go back to the real world. —Michael Rawson

•

Keep an accurate journal (force yourself!). —David Lippman

•

I wish someone had told me to spend more time on the saddle, at least the month before leaving. I found that it takes two (2) weeks of solid riding to get one's fanny ready for such a tour!
—Robert Morris

•

I wish someone had told me that Desitin Baby Ointment works wonders on saddle sores. —Judy Farout

•

Take the time to meet people. They generally enjoy interesting company. You may be an interesting event in a small town. They may call the local newspaper or invite you into their homes or go out of their way to help you. This was one of the greatest lessons of our trip. Make things happen. Keep a daily log and write down details. Reading it over 12 years later is great and we regret what's left out and lost. Take lots of pictures — don't be shy with strangers. —Peter VanderVen

•

When a local resident says it's only a mile or two — plan on 10. —Phil Norton

•

That Mt. Rushmore isn't worth the long, tortuous ride you've got to go through to visit it. —Patty Lorick

•

Take a netted tent (for mosquitoes).
— Dave Lefkowitz

•

Don't waste money on $200,000 life insurance — you'll make it alive.
—George Novak

WHAT DID YOU DO TO HELP WORRY ABOUT THE TRAFFIC LESS?

A rear-view mirror attached to my handlebar was invaluable. I really think it ought to be a law. I was always aware of traffic approaching from the rear, how many there were, how fast they were coming, how close they were coming to me, etc. It was especially helpful on downhills when the wind in your ears hampers your hearing an approaching car, and it is so dangerous to have to turn around and look when you are travelling fast down a hill. —Susan Brown

•

I always use a rear-view mirror, wear high-visibility colors and use an orange fanny-bumper for night riding.
—Robert Morris

•

I have a rear-view mirror (K-Mart, $3.50) on the handlebar. I use it. If a big truck is going to pass me when a car is in the opposite lane, I get off the road and stop if there is no gutter lane. (If the rear person in a group does this, the trucker expects the whole group to and drives accordingly.) I am much more afraid of motor homes/RVs than I am of trucks. The trucker knows how wide his rig is and can put it half an inch from my shoulder. I'm not sure about the RV driver. —Bruce Olhson

•

I always wore a helmet, rode single file, stayed on the extreme right, and constantly used my rear-view mirror. The only time traffic was a problem was while riding through Yellowstone Park.
—Randy Rainbolt

•

Traffic didn't worry me too much. I'm from NYC. —Stephen DeDalto

HAVE YOU DONE ANYTHING CRAZY LIKE THIS BEFORE?

Yep. In 1974, during the summer between my freshman and sophomore years in high school, five of my friends and I set the world record for marathon trampoline bouncing. We bounced night and day, taking turns of course, for 52 straight days and landed in the **Guinness Book of World Records**. At the time we were all 15, except one, he was 12! — Randy Rainbolt

•

Bicycle touring is less crazy than working 9 to 5 all your life. —Harold Pederson

•

My only regret is I hadn't the chance to do the trip until I retired. I am now 71 years of age and still cycling. —Cyril Henry

•

No, I had never done anything as crazy as that before. —Karen Sandy

•

What's crazy is not doing it. —Bill Nelson

CAN ANYONE RIDE A BIKE ACROSS AMERICA, OR DOES IT TAKE A SPECIAL PERSON?

It takes a special person, self motivated, stubborn as a mule. —Michael Rawson

•

I think anyone can do the physical aspect of riding. I may have been the fattest woman to have biked and got across! —Ann Medairy

•

Two legs are a must. I take that back, I rode approximately two miles with only one crank when one fell off. I should say one leg is a must. —Dave Lefkowitz

•

Anyone can do it! All you gotta do is want to. I've met people who were terribly overweight (they lost it), people who had no money (they were happy with what they had; all the junk you read on snazzy equipment is sham), a guy with one arm . Somehow there is a mystique about those who travel long distances as being a special race of beings. Hogwash! —Bill Nelson

•

My friend was not a model athlete at all. We saw a family of four (young kids) on two tandems. Anyone could do this, regardless of race, creed, religion, sex, weight, or appearance. Only requirement is CASH! —David Blum

•

Emphatically yes. It doesn't matter what speed one chooses, it is simply a matter of persistence. Chris and I passed two women from Buffalo, a mother and daughter, who were so obese they probably had to pump extra pressue in their tires to keep them from going flat. They had no concept of bike repair, drafting, gearing, proper clothes; their bikes were technological horrors. Still they were having a great time, managed to ride between 50 and 80 miles a day, and learned about bike repair. I'm sure they lost some weight, too. —David Abramson

•

Anyone at least twelve, in good health.
—David Marshall

•

At one time before the trip, I would have told you it would have taken a special person. However, since the trip I've changed my mind. It does not take a special person. There is one special requirement I feel, it is a trait I found in every cyclist I met and talked with. It made the difference between a successful ride and one that wasn't. The one common denominator was a strong desire to make it happen. That desire coupled with a good attitude will get you across America on a bicycle. —Jerald Byrd

•

It takes a good sense of humor.
—Ruth Baltus ■

BACKSCATTER: echoes from readers back to *Whole Earth Review* (27 Gate Five Road, Sausalito, California 94965)

The cult of information

In the group article "You Can't Count the Apples in a Seed" (*WER* #52, p. 127), Stewart Brand implies that the difference between an "information economy" and prior contacts is that suddenly entropy does not exist.

> . . . And the funny thing about intelligence is, when Gary reads you a poem, you've got it — you can take it home — but he's still got it too. And this is not true if he sells you firewood.

First, it's arguable that the malaise underlying most of current economics, especially Reagan's, is a similar attempt to ignore physics, so this "difference" may be more flavor than substance. Second, his statement pivots on a sloppy definition of "it."

The difference between the "it" that anyone might take home from Gary's reading and the "it" that Gary brings back to Kitkitdizze may be larger than the gross national product of Honduras. That difference amounts to how much work went into creating this information and nurturing and maintaining it. If you have not put in an equal amount of work in figuring things out, grunting and thrashing your way through similar underbrush in the informational territory, then you won't get the "it" that Gary hints at as accurately as he can in a poem.

It's the same with koans and Zen practice. The "answer" can be read from a book, but it won't be accepted by a Zen master until it issues forth with all the grace and spontaneity of spring grass growing. That grace stems from a lifetime of work of cultivating patience, sharpening your mind, and relaxing through emotional gales. Then, when the work put in by student and master are equal, the answer to the puzzle passes between the two with no effort.

So just as Silicon Valley is waking from its daydream of a "clean" industry to find a stiff price to pay in the disposal of heavy metals, they are also experiencing growth limits determined by how much information needs to be ricocheted around the country. The latter depends on the education and industry of the nation, which in turn depends on how much energy flow the nation can control. The information economy is an air castle resting on such crude energies as oil, gas and coal.

This information will have tremendous abilities to influence, as Gary Snyder's quote of Odum suggests, but only in proportion to the amount of work that went into it in the first place. And we still are not accounting for the work needed to nurture and maintain that information. Ask the Hopi or the Amish how hard it is to maintain the accumulated wisdom of millenia in the face of rogue cultures which pillage for the profit of a decade.

The Great Crash of '29 still gives us shivers as we witness the abstract shuffles of paper value based on people's future intentions and hear brokers speak of the market as a magic money tree. This horn of plenty, they claim, is not tied so much to resources (stored work) or to the work of the sun, peasants, or bacteria as it is to our imagination, gumption and drive. Shoudn't we get the same shivers when "progressives" speak of a near effortless information economy barely tied to the food chain?

It should give us shivers. Working with Odum we've compared the work going into 3rd world products with the work supporting the 1st world payments; the latter falls far short. For all their effort, be it human or natural, the 3rd world receives in return less work in the form of the effort or influence which the money will command.

No wonder the poor nations are in decline, and no wonder that people in Wall Street see wealth coming from nowhere. They don't recognize the amount of work which went into 3rd world products, yet they realize the profit. How much more topsoil will flow down the Mississippi while information age leaders cannot see beyond the laser-cut corridors of their microchips?

The awe and wonder of the information cult reminds me of the euphoria of early alcoholics and drug users. Oh, what insights they have as their clenched mind relaxes a little! But they still do not recognize the labor of their liver and kidneys in support of these synaptic leaps, nor do they perceive their ability to discern and choose melting away.

Jan Sendzimir
Gainesville, Florida

Vernacular Gaian politics

William I. Thompson ("A Gaian Politics," *WER* #53, p. 4) has a great talent for arresting epigrams and turns of phrase, but his "future transforms" are for all practical purposes hopelessly utopian. The article presupposes that humanity is rational, cooperative, and capable of renouncing (or postponing) short-term advantages or perceived securities in favor of some long-term ideal. Since humanity is collectively never, and individually seldom, capable of such wisdom, the final ideas in the article become an inadvertent satire on ivory tower liberalism. The author asks: "What would be the slightest and subtlest of moves that could transform our political world from a planetary state of terror to the Gaian polity of compassion . . . ?" Then he proceeds to give a list of "slight and subtle" moves that, given the present geo-political reality, boggle the mind in their sheer improbability of accomplishment. One wonders what kinds of moves he would consider difficult.

Rationalist polemics are almost always characterized by a scathing wit — the sword of discrimination loves to wound its opposition. (A brief glance at the letters-to-the-editor column of any scientific journal will confirm this observation.) This is intellect in the service of emotion, which is a perversion of its ideal function: the same process takes place in rationalization, which is the ultimate degradation of the mental faculty. Sad to say, such a use of the intellect always makes for lively reading and is therefore a great temptation to any writer — including this one. Nevertheless, a cheap shot is a cheap shot — President Reagan is probably everything that Thompson implies he is, but the author's continuous stream of gratuitous put-downs soon becomes an embarassing indulgence. Reagan is the mirror of those who voted for him — America *needs* Reagan if it is ever to experience the growing pains of transcending what he symbolizes. ►

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If there will ever be a "Gaian Politics" it will, as always, evolve out of the choices imposed by day-to-day necessity, and not conform to any master plan. Optimistically perceived, human evolution seems pointed in the direction of some kind of global culture, but what eventually emerges is unlikely to reflect the dialectics of Thompson's article. Final solutions to the problems of the world make thought-provoking entertainment, but based on my life-time reading of such fare, they are the stuff of illusion. The only ultimately reliable solutions are individual, not collective.

James B. DeKorne
El Rito, New Mexico

Evidently he didn't like the cover

Your current issue (#53) of *WER* is a DISGRACE! It is obvious that you and your people are some of Lenin's "useful idiots."

If it were my decision, I would have my government shoot you all for treason against my country.

All I can do is fervently hope that your DISGUSTING Marxist vision of the future does not come to pass.

Be advised that I want my subscription cancelled *immediately* and any balance remaining promptly refunded to me.

I want nothing to do with perverted Communist jerks like you people appear to be.

Peter F. Young
Berkeley, California

cc: Federal Bureau of Investigation
Senator Pete Wilson
Orthodox Church
of All Russian Saints
Internal Revenue Service
President Ronald Reagan

The human niche

The article from Earth First! (*WER* #53, p. 42) sits uneasy in my mind.

How can [Dave] Foreman, et al., criticize humankind for its arrogant belief in a divine right to subdue the Earth while simultaneously proposing a highly selective program of mass relocation, destruction of human capital, elimination of "exotic" species, etc.? The "natural order" they seek to recreate is just as artificial and contrived as the world they wish to eliminate.

At the root of their ambitious program lies a basic problem: they fail to understand or accept the niche that we humans occupy in the ecosystem that spawned us. Benevolent stewardship may imply an arrogant sense of dominance, but so does the resentment of "puny and truncated wild areas" and the will to power embodied in the "modest" wilderness preserve system advocated by these self-styled visionaries.

Hypocrisy? No, just plain inconsistency, the kind of shoddy thinking and emotionalism that typifies most radical proposals and bears little or no relationship to the world it purports to save.

What scares me about zealots like the folks of Earth First! is their tendency to turn into fascists when given the opportunity.

Stephen W. Rhoads
Bradford, Pennsylvania

Cheating the local merchant

In reading the section on music in *WER* #53 [p. 86], I found myself irritated, then angered at the glib advice on how to buy from "the two cheapest mail order sources" of consumer electronics. Your recommendation to "first visit an electronics store near you and get familiar with the features — then compare prices and shop mail order via their 800 number" reveals the same moral blind spot that has engendered most of the many paranoid and defensive systems created and maintained by providers of goods and services (i.e.: software copy protection, computerized check and credit card approval, electronic shoplifting systems, etc., etc.).

They just ain't no free lunch, and that includes buying at the "cheapest mail order prices." What's it worth to be able to walk into your convenient local retail store and check out the products first hand, ask questions of the salespeople that are being paid to be there for you and then take their literature home to make the final decision? Those are services that have been provided to you at considerable expense by that local retailer, and apparently have some value to the mail order buyer, or the mail order buyer wouldn't be in there taking advantage of them. Why not recognize this fact when making that decision about where and what to buy? Whether you require service before you make the purchase or afterwards is irrelevant to the question.

I should state my biases at this point. I own a moderately successful music store, and am one of those local vendors it was recommended by you that people go see to figure out what it is they want to buy before calling a discount mail order firm to place their order. I also consider mail order alternatives to purchasing from my local vendor, and I recognize that local resources, in terms of knowledgeable salespeople and/or product selection can be inadequate to terrible. When such is the case, I take my business to where my needs can be better filled for the best possible price, whether it's mail order or local.

However, since one of the costs/risks of doing business by mail is, for many if not all products, the chance that it will turn out to be different than what you thought you were ordering, the temptation is there to get some "free" information from the local retailer to minimize your risks. If one were to be ruthlessly honest about it, one might discover that the ability to touch, play with, listen to, test a product and ask questions before buying it is, in many instances, worth a large percentage of the selling price, considering the risks of getting it wrong somehow. There's not only the danger that what you wanted was not exactly what you ordered, but it may break on you, or you might not be able to figure it out when you do get it.

So what is it worth to be able to walk into a local store, use their facilities, knowledge and most importantly, try out the product you are interested in? That depends upon how much you need those services, whether you avail yourself of them, and how well the local business provides what you need. But *if the need is there,* and the local business fills it effectively, how about some consideration of that value received when making a buy decision?

Karl J. Forsyth
Anchorage, Alaska

MONGOL EBERHARD FABER U.S.A. 482 No2

Tidbits

A construction worker's daughter, McCall, Idaho, 1975: "Mom? Oh, she's at home cleaning Dad's hardhat. It's getting the pillows dirty."

Three from Margaret Augustine, Big Timber, Montana:

"Things were getting heavy at the AA meeting so we decided to change the subject and Bill stood up and said, 'One spring it got so cold all the birds died.'"

"Up at hunting camp this dude was bragging on his new hundred fifty dollar hat by saying that a human lost ninety percent of his heat through his head and the packer said, 'O.K., I'll sleep with my body in my sleeping bag and you sleep with your head in yours, and we'll see who gets coldest.'"

"A young sheepherder was telling me that when he docks tails he leaves a couple out of every thousand long so he will be reminded that not all sheep are the same."

A horseshoer, Ontario, Oregon, 1986: "I know a turkey farmer who keeps his toms quiet by letting them breed with a half-inflated basketball."

Sign in a cabin bathroom: "Don't flush anything you haven't already eaten."

Found written under the cover of a large electric motor: "You are what you don't shit."

jd smith
Donnelly, Idaho

The blindness of excess

I too wonder as Ron Westrum does (*WER #52*, p. 36) what kind of environmental problems are hidden from our view not so much because their manifestation seems too implausible to report, but rather because the warning signals that we have gone too far, which Westrum spoke of, may be and probably are reported and buried deep within the voluminous amount of scientific literature published weekly, monthly, etc. A part of the blind eye of science today can be attributed to this vast amount of scientific information which has to be sifted through. The data is there; it only needs to be laced together, which may no longer be humanly possible. It is a sobering thought that in our effort to report anomalies, with the fear that one may get by without a publication, we have in effect missed the forest through the trees.

Shaun Sommerer
Brookings, S. Dakota

Rare birds of reason

I was thoroughly delighted with your Fall '86 issue — it gives such a sane treatment of the aura of faith surrounding Science, Pseudo-Science and the Occult, that I suspect you have probably offended almost everyone. The will to *believe* (or disbelieve, which is the same thing turned inside-out) is much stronger in most of us than the will to *know*. Scientists can be as dogmatic in their rationalism as true-believers are in their irrationalism. Individuals who are vitally curious about the truth of a matter (no matter where that truth may lie) are extremely rare birds. Most of us, rationalist and irrationalist alike, invest more of our energy in defending a position than in examining whether it is really worth a defense. . . .

To me, the lunatic fringe that will believe anything is neither more nor less amusing than the hyper-rationalists who believe nothing but the redundantly obvious. The facts of my own experience tell me that the universe is far more wonderful than either of these views would admit. Humanity has an infinite capacity for self-deception, and with it a compulsive need for complete explanations. Combine with this the simple fact that all of the data isn't in yet, and you get a never-ending flow of wonderful dogmas, dreams and absurdities — enough to delight and amaze us for a lifetime. And when the explanations begin to pall, we can always return to the unexplained phenomena themselves for entertainment. Your Fall issue was a real treat.

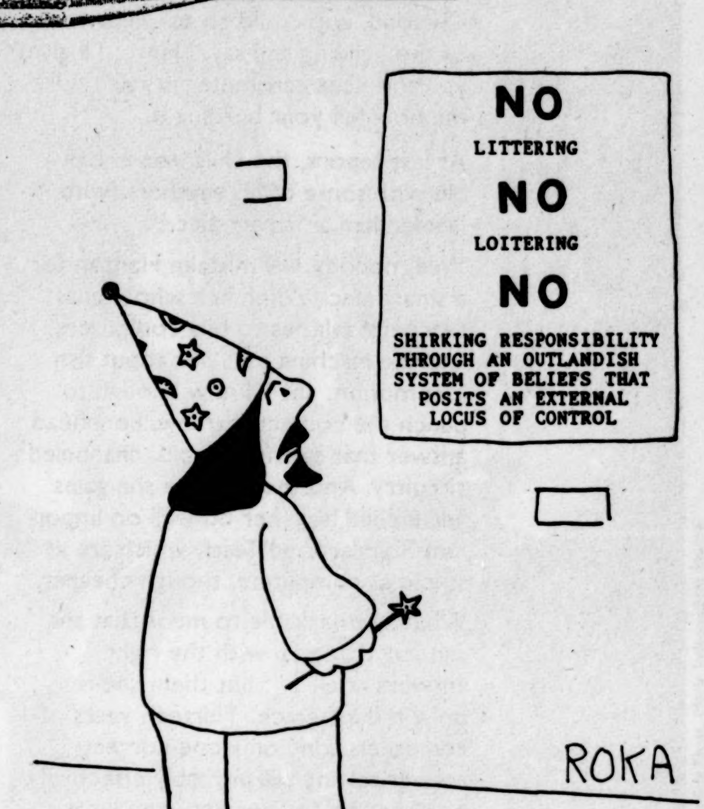
James B. DeKorne
El Rito, New Mexico

Fishwagons and smart-alecs

Maybe you've seen it: a TV commercial for a new computer system to teach young kids basic skills. The ad shows cute little girl listening to voice synthesizer ask, "Can a fish ride in a wagon?" The computer screen she is watching shows a smiling fish sitting in a wagon.

Cut to girl's face. She says, "No," giggles, and presses appropriate button. The right answer.

A wide shot shows the kids filing out of the classroom, with voice-over explaining that kids in this pilot program scored high in Important Standardized Tests.


NO
LITTERING
NO
LOITERING
NO
SHIRKING RESPONSIBILITY THROUGH AN OUTLANDISH SYSTEM OF BELIEFS THAT POSITS AN EXTERNAL LOCUS OF CONTROL
ROKA

Something about it bugged me. I brought up the question to my in-house Child Developmental Curricula Evaluator: niece Hannah, age 8. "Can a fish ride in a wagon?"

"Yes," she says. "If it had water in it. Or if it was a fish-selling wagon. But the answer would be no."

Hannah returns to card game — coincidentally, Go Fish — while uncle tediously embellishes child's succinct wisdom.

Hannah knew the answers (emphasis on the plural!), but more revealing was that she knew "the answer would be no." At eight, she can play the game.

Not surprising, really. Kids who don't play the game get into trouble. I can't vouch for the truth of this story I heard several years ago, but I am sure similar things happen in classrooms daily:

A class had been studying how air pressure decreases with altitude. A test question asked them how a barometer could be used to measure the height of a tall building.

All the kids dutifully scribbled out the single, predictable answer, except one. He wrote: "There are two ways. First, you could drop the barometer from the top of the building and time how long it takes to fall. You can find the height with the equation $y = \frac{1}{2} at^2$, where y equals distance dropped, a is the acceleration constant (gravitational acceleration is about 9.8 meters per second) and t is the time. ►

"Second, you could go to the owner of the building and say, "Here, I'll give you this neat barometer if you'll tell me how tall your building is.""

At last report, the child was in trouble with some of his teachers, who labeled him a "smart alec."

Well, nobody will mistake Hannah for a smart alec. When her school cuts teachers' salaries to buy computers, and the machine asks her about fish locomotion, she'll know enough to punch the correct, narrow, bonehead answer that satisfies stupid, channeled circuitry. And the practice she gains will indeed help her do well on Important Standardized Tests, which are as stupid as computers, though cheaper.

What's remarkable to me is that she can still come up with the right answers at all . . . but then, she is only in third grade. Thirteen years of computer-aided only-one-correct-answer testing will probably effectively blur the line for her between what's right and what's expected.

The trend toward computers in the classroom — and, for that matter, computers in the real world — is a wonderful thing when humans pose the questions and computers find the answers, for the combination of human creativity and a computer's tireless, plodding research is potent.

But do it the other way around and we'll only rid the world of smart-alecs. In that case, good luck to us all.

Brad Lemley
Washington, D.C.

Hard disk prayers

I was just reading a travel article on Tibet where this American businessman calculates that a pilgrim giving each of the 108 prayer wheels in Lhasa's Jokhang Monastery a turn as he or she circles around the exterior walls recites "Om Mani Padme Om" 16 billion times in one circuit as long as the turn possesses sufficient force to leave the wheel revolving ten times. While I don't as yet have a TV, I am trying to get on this computer bandwagon with you guys, like those yurts, funny food, clothes, books etc. when I was younger. So anyway, I realized that a hard or floppy disk would make an excellent prayerwheel, enabling a user to enter an untold amount of prayer information and spin it very quickly, with ability to alter, monitor, and tabulate prayers as the situation or times dictated. I think adding a little prayer somewhere in your routine programs might help too, as it would spin around with the rest of the data and surely have a good effect.

John Benecki
Inchelium, Washington

Do not be angry

I must reply to Leonard Price's "appalled" reaction to the Diamond Sangha's use of the memorial service for the unborn child, and I must reply as a Buddhist. I was first surprised and then saddened by Mr. Price's vehement statements. His interpretation of the meaning of the First Precept is extremely narrow and, I think, harmful.

I believe most Buddhists interpret the expression "do not kill" to mean a great deal more than the actual killing of organic life: I have seen it variously as meaning to refrain from harming other creatures, to be conscious of and respectful of that which is pure and enlightened in all creatures, and to move about the world in the least disturbing and most conscious way. If it is interpreted in the narrow, even fundamental way of referring only to causing death, then the Tibetans, traditionally meat-eaters, are in trouble. And so indeed are all of us who step on ants and breathe in bacteria, as the Jains would argue. The truth of the matter is that each of us kills every day, just by being alive, and that we each must make individual choices regarding the degree to which we are willing to go. Buddhism doesn't offer freedom alone; it offers freedom within great responsibility.

Mr. Price expresses his dismay in angry phrases, going so far as to gravely insult Roshi Aitken by referring to him without his title. I hope he can find it in his practice to study all the Precepts together, including "do not be angry" and "do not be proud." To be a Buddhist means the constant labor of searching within ourselves for tolerance, acceptance, and the willingness to accept the consequences of all our actions, however small.

Sallie Tisdale
Portland, Oregon

Binding children

In Sally Tisdale's "Dehiscence" (*WER* #51, p. 1), I sense not the essence of parenting, but a general malaise of parenting: that our children leave us so soon. It seems unnecessary, but it is the effect of taking a generalized prescription for life in the USA. There are other prescriptions that result in more sustainable bonds, & a stronger feeling of success in parenting. One, which I use, is:

1. Nurse the kids for years.
2. Sleep with them forever, or until they find someone else to sleep with.
3. Work at home (both parents) so you can:
4. Homeschool the children (i.e. do lots of physical work with them, talk a lot, and devote a few hours every year to the 3 R's).
5. Don't compromise on creating good health.

Beth Ardapple-Kindberg
Bass, Arkansas

Jewelweed antidote

On *Poison Ivy* (*WER* #52, p. 117): I have used jewelweed as an effective poison ivy remedy for years. The juice of the plant or an alcohol extract of the leaves and stems are soothing, and seem to rapidly and thoroughly cure the irritation of poison ivy. I make about a quart of extract each spring, just in case.

Jewelweed is a common bottomland plant in the Midwest. I doubt the dried plant would be very effective, since the juice is what does the trick. I usually am able to apply jewelweed shortly after exposure to poison ivy, and therefore have never had a chance to try it on serious, blistering cases. It seems to stop the irritation in one good application. Folks who can't find wild jewelweed may write me at the address below, I'll try to help.

Lawrence Lile
801 Alton Avenue
Columbia, Missouri
65201

Kale alert

Ornamental kale is great eating (*WER* #52, p. 125), but readers should be warned that *commercially grown* ornamentals are often garnished with exceptionally high levels of pesticides and chemical fertilizers. Many growers — even the small-timers who supply our local greenmarkets here in New York City — assume that the consumer is not going to eat the stuff, but only keep it as a centerpiece and then chuck it out. So they take measures to insure superior ornamental properties, in the process rendering the crop inedible. In short, ornamentals should be eaten only when they are homegrown or supplied by reliable organic sources.

Michael Krugman
New York, New York

EWEC Publication Party Thank Yous

We wish to thank the following people and businesses for their generous contributions to the Essential Whole Earth Catalog Publication Party:

Alexander Valley Vineyards — *fine wine*
Andy's Produce — *crisp apples*
Big G Super — *assorted goodies*
Calso Water — *refreshing water*
Dixie Flowers — *beautiful, creative flower arrangements*
Graffeo Coffee — *rich, delicious coffee*
Grainful Bread — *truly delicious rolls*
Kenwood Vineyard Winery — *fine wine*
Marin Cheese Company — *great brie*
Real Food Company — *delicious cranberry juice*
San Francisco Ice Company — *what else?*
Savories — *assorted delicacies*
True Confections — *incredibly decadent chocolate cake and cute, tasty muffins*
Jonathan Evelegh — *evening's great taped rhythms*
John McCormick and Michael Stadler — *great, live folk music*
Adrian Schafgans — *sound system*
Christina Sponseller — *enthusiasm and lots of hard work*

Frankie Frost, Marin Independent Journal

To soothe the souls of weary workers and to mark a definite end to an immense undertaking, the staff of the *Essential Whole Earth Catalog* staged a publication party, sponsored in part by Doubleday. "Come dressed as your favorite tool" was the order of the day. A few of the tools that showed up: a hammer, a calculator, an artist's paintbrush, a fountain pen, a condom, a VISA card, a French curve, a ruler, and three Swiss Army knives. Like the real thing, each knife offered different features. Left, Don Ryan sported the handle's sleek logo on his red shirt. Lorrie Gallagher wielded two all-purpose giant blades. And Stewart Brand, right, mimicking the Champion model, furnished the ever-ready can opener, screwdriver, and scissors.

Point/Whole Earth Consolidated Report:

Third (July-September) and fourth (October-December) quarters 1986

INCOME	**3rd quarter**	**4th quarter**
Subscriptions	$ 88,993	$ 107,360
Back issues	717	735
Mailing list rental	3,190	8,968
Unclassifieds	1,585	971
Direct distribution	14,862	14,020
Dell (national newsstand)	12,767	13,422
Sales: EWEC	15	14,780
WESC	1,230	694
Best of CQ	1,448	3,171
Syndicated column	7,840	7,630
CompuServe	502	414
EWEC royalty advance	51,000	-0-
Contributions	4,022	5,009
Interest	468	363
Miscellaneous	229	156
EWEC production/promotion	20,000	500
Grants		4,000
Total Income:	**208,868**	**182,193**

PROFIT/LOSS	**3rd quarter**	**4th quarter**
Income	**$ 208,868**	**$ 182,193**
Expense	**193,679**	**177,687**
PROFIT	**15,189**	**4,506**

EXPENSES	**3rd quarter**	**4th quarter**
Salaries: Editorial	$ 29,318	$ 15,338
Production	41,794	15,060
Circulation	6,611	15,325
Office	4,779	10,681
Research	7,441	3,333
Payroll taxes/benefits	7,372	3,809
Writers/contributors	9,738	20,787
Supplies/research	6,876	2,569
Magazine printing	26,815	26,734
Subscription fulfillment	15,008	18,369
Direct distribution	1,104	827
Dell (national newsstand)	2,443	2,430
Mailing list rental	412	814
Fulfillment: EWEC	-0-	9,671
WESC	711	15
Best of CQ	9	18
Syndicated column	6725	7275
CompuServe	-0-	305
EWEC printing	6,400	-0-
Workers' compensation	646	646
Equipment rent/maintenance	1,462	378
Telephone/networks	3,837	2,180
Postage	2,270	2,644
Auto/travel	93	889
Promotion/publicity	111	311
Rent/maintenance/utilities	9,295	9,781
Legal/professional services	10	10
Interest/bank charges	2,124	2,027
Insurance	-9	1,234
Operating expenses	284	227
Grants		4,000
Total Expenses	**193,679**	**177,687**

Gossip

I hope I don't bore you with more chit-chat about weddings at Whole Earth, but we've had a few more lately. The first one took place the day after New Year's in the wood-panelled gym of the Strawberry Recreation Center in Mill Valley. A red aisle threaded between folding chairs and on through a lofty arch of red balloons. Chinese banners hung on the walls, Chinese food filled the tables, hinting at the presence of many Chinese guests and relatives of the Chinese bride. She was a charming bio-chemist named Fuh Gia-Miin. I was the groom.

We've been married two weeks now and it seems wonderful. As soon as the last of the 74 paste-up boards of this issue are bundled up to mail to the printer, we'll be taking our honeymoon in Taiwan, to visit my new in-laws. So far I can say "How are you?" and "No thank you, I'm full" in Chinese.

With hardly time to change back into street clothes, Whole Earth staffers celebrated a second wedding. Ted Schultz and Becky Wilson, the editor and art director who put together the recent blockbuster Fringes of Reason issue, took their vows . . . (Twilight Zone music here) . . . the very next evening in the very same hall. Even Jay Kinney, former **CQ** *editor, who performed the ceremony in his capacity as a deacon of a Gnostic church, noted how strange it was to be back in the same place the next day with the same guests for another wedding, as if there were only 200 people in the whole world.*

(Left) without quite knowing why, Ted and Becky interlink arms to nibble on Becky's homemade spice cake. (Above) Ted's alter-ego stands in for him on the cake top.

While all that was happening, the **Essential Whole Earth Catalog** *was selling steadily at Christmastime. New York has been unimpressed by its tame fame because the only bestseller spotlight the book has made so far is two weeks on the Bay Area list (10th and 5th places). Chain bookstores beat the drums in the publishing world now, and what they want are books that ripen immediately and sell out in a short lifespan, like supermarket fruit. The original Catalogs skated to the heartland on a very graceful sales curve that slowly, gradually looped up, driven by the quiet electricity of word of mouth. That's what we anticipate for this one, too. We could rightly be expected to be tired of the book after living in it for so long, but in fact it looks better with age, and I find that it's*

The Cake-Cutting-With-Single-Knife Ritual performed by Kevin and Gia-Miin.

Jeanne with villagers in Phedi, a Gurung village in the Annapurna region of Nepal. The caped women are village leaders who could outrun the towering (5' 3") visitor. As they toured the mountainside village together, they would scamper ahead to wait for Jeanne at the tops of ridges, cigarettes lit, grinning.

a more useful book than I thought as we were making it.

David Burnor scooted out from under the pool of review books which he had requested, and dove into the tropical waters of Hawaii on a scuba tour. Far below the surface of the Honolulu beaches he explored the reefs of Oahu, and saw glorious murkiness — a total washout because of heavy rains.

The WELL community could no longer contain itself inside the computer system of the VAX. The decisive factor was probably the Dead Heads. For the past year the members of the WELL have proven to be less interested in the wires of the system, and more interested in the electronic neighborhood created by conferences on such subjects as **Mind, True Confessions, The Future, Sexuality, The Corner Pub, Boing, Spirituality**. *But nothing has swelled the ranks like the arrival of the Dead Heads who meet on the WELL to do what they do at Grateful Dead concerts — hang out with buddies, have mild intellectual fellowship, and gossip. Daily meeting on-line has nurtured an irrepressible urge to meet face-to-face, which now happens in a monthly WELL party. Ramon Sender (who has written in* **CQ** *about Spain and communes, having heritage in both) usually brings his accordion and plays Spanish folk songs.*

Way down in Mexico, in the old silver mining town of Alamos, a friend of Whole Earth maintains a winter home. She generously offered it to Cindy and Dick Fugett for their delayed honeymoon. They arrived after a 17-hour, Christmas-crowded train ride that was, amazingly, only 15 minutes late. The town is an idyllic hill station that has attracted a permanent colony of retired gringos, settled in for a quite, serene life. The most active thing going, Dick said, was the value of the peso, which dropped DAILY, making them richer as they stood there.

Trekking in the mountain villages of Nepal on her sabbatical from managing the **Essential Catalog**, *Jeanne Carstensen found a different kind of activity. She had reached a threshold on the foot trails when she discovered a leech burrowed into her bellybutton. "They like holes. It could have been worse." Her spirits were uplifted by meeting several* **WER** *readers and eccentric characters in the hills. "The high point, or low point, I still don't know which, of the whole trip was an evening I spent in a remote inn in the Himalayas with some European filmmakers. We're all gathered around a smoky, dark room. Local Nepalis went in and out of the candle's light. We were served Mustang coffee (named after a kingdom of Tibet), which is Nescafe instant coffee mixed with the local moonshine, called Roxie. By the end of the evening I found myself standing on my head on the table, back-to-back with a British guy who was also on his head. The honor of the American Republic or the English Empire was at stake. As we balanced on our heads, our fellow countrymen poured Mustang coffee into our upturned mouths."*

I guess the only thing that could hurt your head more would be to have it bashed with a club. That's what happened to our new promotion director, Richard Schauffler. On October 12, he was participating in a demonstration protesting a fundraiser for the Contras taking place in San Francisco, and was beaten up by the police. There's a law against that here, and since it was filmed, the city is taking legal action. Controversy seems to be the theme of the year for Richard. He was a casualty in the coup of leadership that overturned **Mother Jones**, *a minor media scandal because staff were dismissed for being too LEFT on a magazine that almost institutionalized liberal political correctness.*

Somewhat politically incorrect, Whole Earth managed to offend both right and left with last issue's cover. One reader in Soccoro, New Mexico received his issue with the picture on the cover ripped off. Russian Orthodox Postal Workers Unite! Since we've aired two views on dealing with Russia, it's time we heard a third. That's one of the beats of this magazine — triangulation of polar arguments. Another is as an incubator for unconventional ideas. (Now with two consecutive quarters in the black, perhaps a self-sustaining one at that.)

My next project is collecting material for a book/special issue on information tools and communication skills, tentatively called **SIGNAL 1.0**. *It's about how to use information, both high-tech like telecommunications and desktop publishing, and low-tech like library research skills and sketching. Suggestions, submissions, and products welcomed. J.Baldwin, who now has semipermanent digs and a phone for the first time since 1969, will be guest editing the next issue. Over to you, J. —Kevin Kelly*

Preserves

Join the **Whole Earth Preservation Society and Volleyball Reserves**. Your $25 donation helps support the magazine; in return, you receive a quarterly newsletter filled with gossip, news, letters and other information. We'll print your name in the magazine (unless you prefer otherwise). Send your check to Whole Earth Review, 27 Gate Five Road, Sausalito, CA 94965. (The newsletter is mailed between magazine issues to all Retainers, Sustainers, and Maniacal subscribers as well as to the following readers, who have recently joined the Preservation Society. Thanks for your support.

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Bob Dodson, Albuquerque, NM
Glenn & Lola Embrey,
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If you want your name left off mailing list rentals, please write and tell us.

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That phrase under access information in ***Whole Earth Review*** means you can mail-order the item from the Whole Earth Access store. *Do not send orders for books to* ***Whole Earth Review***. Send orders to:

Whole Earth Access
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California delivery: add 6% tax (BART counties add 6½%). **VISA/ MasterCard** orders accepted.

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The quickest way to order back issues of this magazine is not from us but from Whole Earth Access (see address above). ***CoEvolution Quarterly*** issues 14-43 are $3.50 each, postage paid, or $10 for four. Each ***WER*** back issue is $3 for issues 44-47 and $4.50 for 48 on, postage paid. All 28 available **CQ** issues are sold as a set for $34, postage paid.

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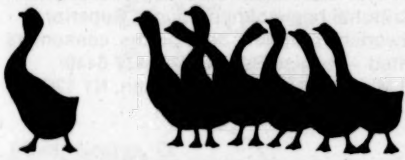

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SWF very youthful looking 31 years old, some resemblance to Kristy McNichol. Very bright, perpetual student (psychology and social work). Committed "peace and justice" type liberal Christian, and very left-wing Democrat/moderate socialist. Past accomplishments: started a large food co-op for elderly and founded a small but nationally distributed horse magazine. Future dreams: to start a rural halfway house/sheltered workshop or intentional community for ex-cons/mental patients/handicapped/homeless, etc. Also: organize tenant-owned shopping mall for small entrepreneurs — include living space — create small town with indoor streets. Other pet project: design definitive high school vocabulary course, possible complete HS correspondence course with leftist/progressive slant. Other interests include books, ideas, music (especially gospel and blues), animals, gardening, health, humor, and good conversation. Please write — send picture. Sue Gardner, 3923 Huntingdon Dr., Minnetonka, MN 55343 or call 617-497-6973 till June '87.

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AS HABITUAL ENCYCLOPAEDISTS, we lace this magazine with cross-references to back issues and to our paper database, *The Essential Whole Earth Catalog* (EWEC). Figuring that whatever is useful to us is probably useful to you the reader, we present our annual in-house index on 12 extra pages. The previous four issues of *Whole Earth Review* (#50, #51, #52, #53) are indexed here. Subject headings are **bold**. Book titles are ***italicized***. Software is CAPITALIZED. Articles are "enclosed in quotes." David Burnor keyed and sorted the lot by proficient use of SMART database software, then funneled the file into a word processor to be typeset. Since typesetter James Donnelly didn't have to keyboard it, he used the time to develop a set of alliterative alphabet tags. This year's index is brought to you by the letter **O** (Otto Oddly Optimistic). —KK

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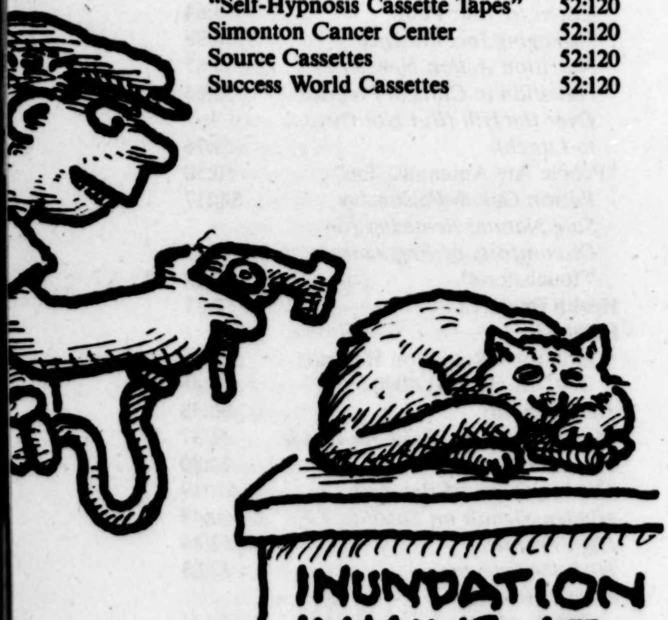
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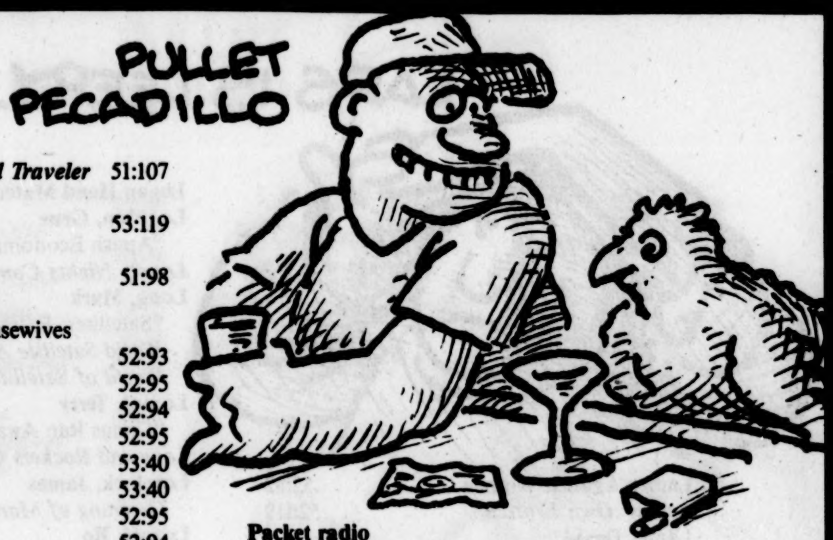

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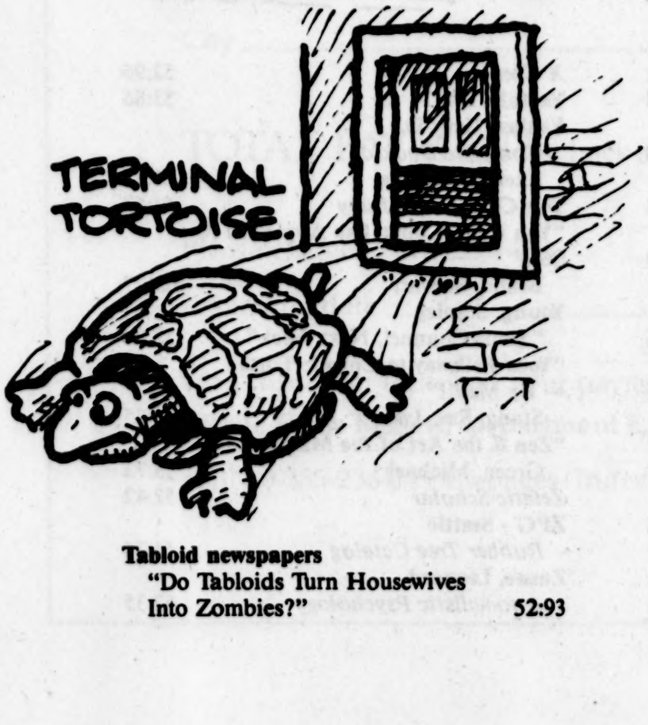
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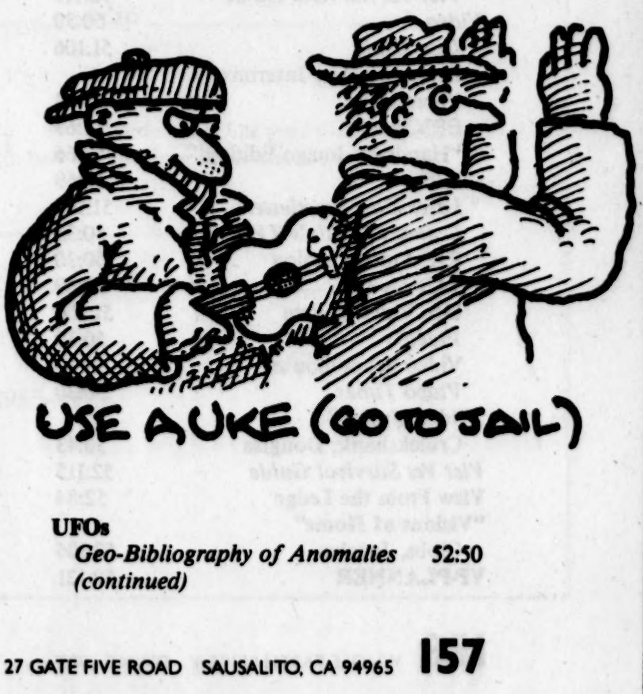
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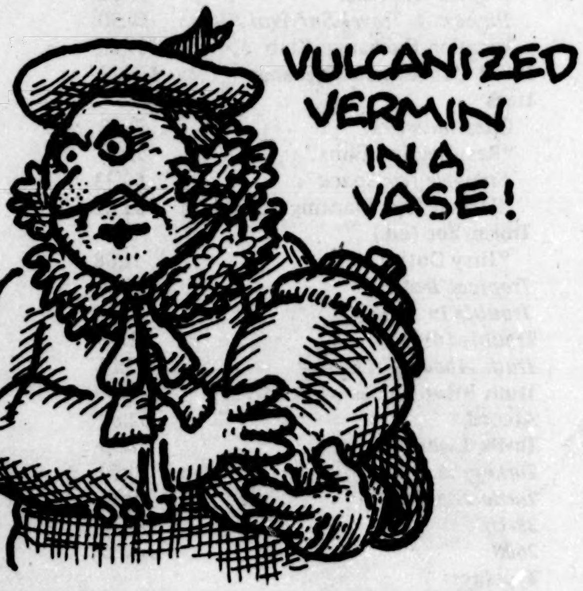
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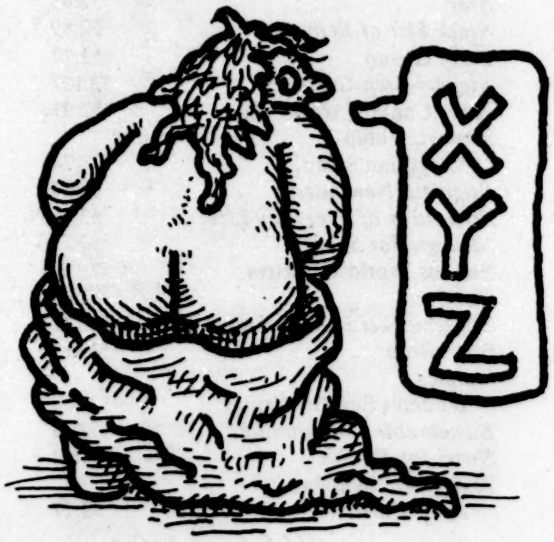

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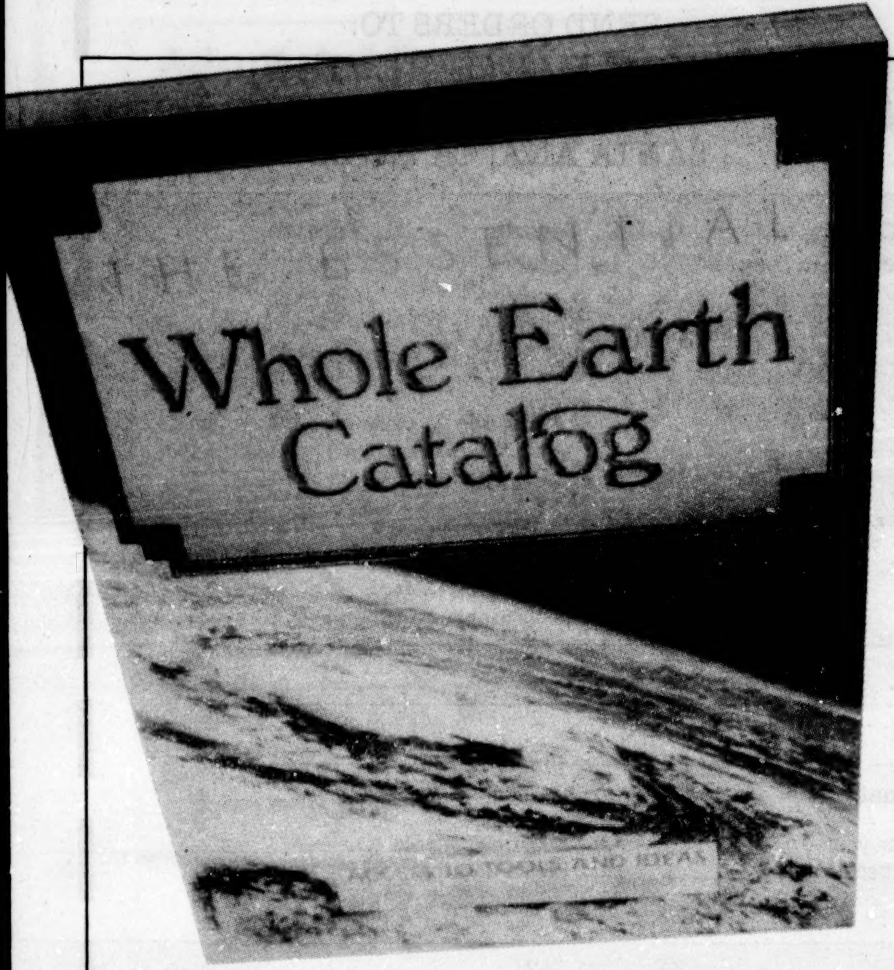

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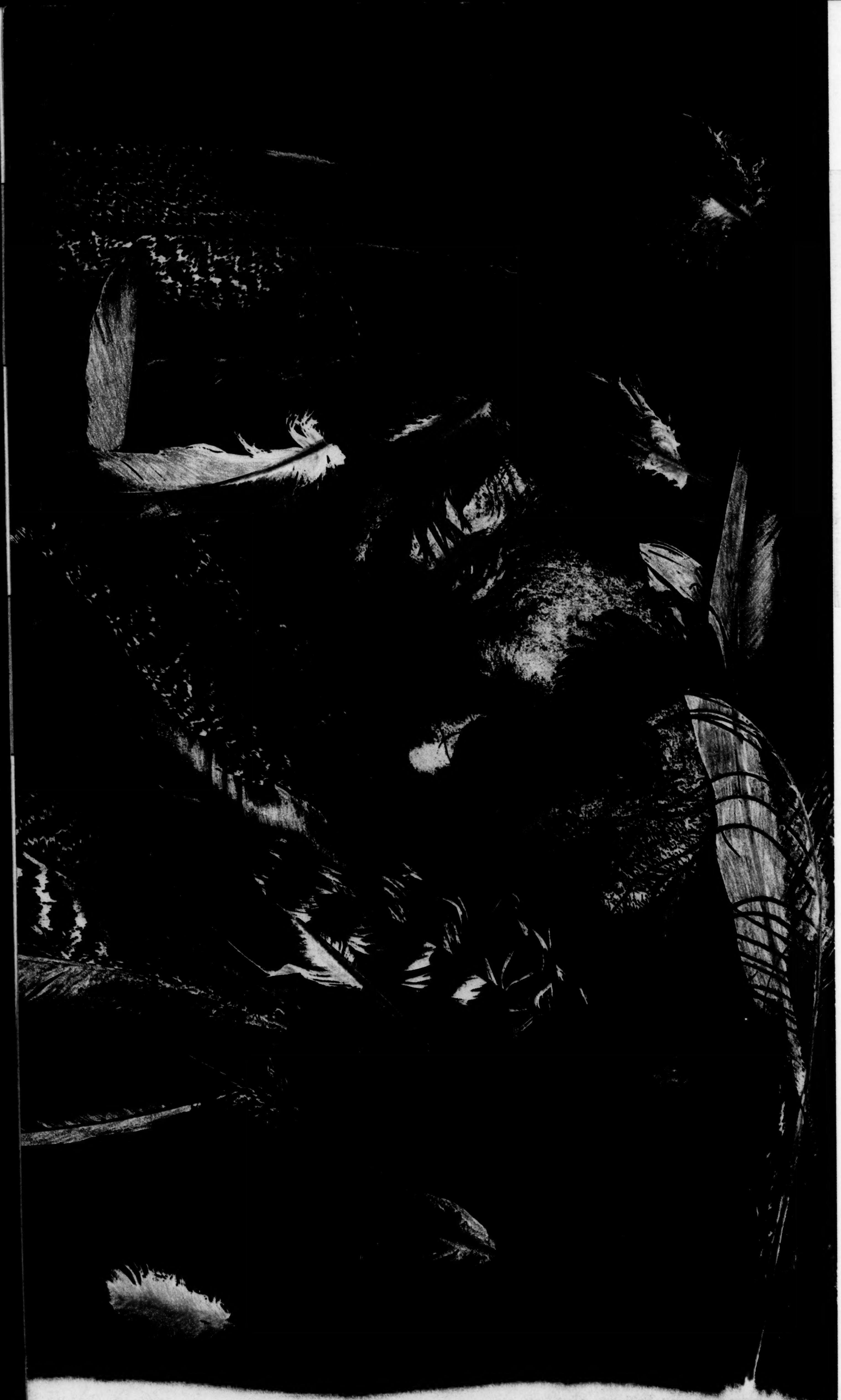

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